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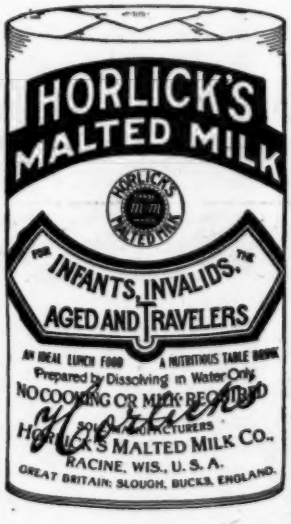
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A Monthly Journal of Medicine, Surgery, and the Collateral Sciences

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General Scientific

FEEBLEMINDEDNESS AND THE LAW FROM A MEDICAL VIEWPOINT.*

THOMAS W. SALMON, M.D.,

MEDICAL DIRECTOR, NATIONAL COMMITTEE FOR MENTAL HYGIENE, MEMBER ADVISORY BOARD, CHILDREN'S HOSPITALS AND SCHOOLS, RANDALL'S ISLAND.

New York.

A comparatively short time ago feeblemindedness was of interest almost exclusively to psychiatrists, psychologists and teachers,—those who in their daily work are directly concerned with the study of human brains. Although the disastrous consequences of permitting the feebleminded to participate in the affairs of life upon equal terms with others were recognized and often publicly voiced by those charged with their institutional care, it was possible to arouse but little general interest in the subject. There was no general appreciation of the fact that the problems of feeblemindedness touch in some way every man and every woman and are to be met and solved not only in the institution and the clinic but in the school-room, the court, the prison and the home. Within a few years a remarkable transformation has occurred. Today interest in feeblemindedness and its consequences—to society and to the individual—has extended far beyond those whose professional work brings them into contact with the mentally defective. There will be little dissent at the present time from the statement recently made by Dr. E. E. Southard that the problem of the feebleminded is the chief single practical problem before a State.

Evidence of this extraordinary popular interest in mental deficiency is everywhere to be found. Within three years, twelve official commissions have been appointed in as many States to study the problems which have grown out of our failure to provide for the feebleminded. Half as many new beds in institutions for the feebleminded have been provided in the United States since 1910 as in the sixty years preceding. The special classes for feebleminded school children existing in nearly all the larger cities have created such a demand for teachers trained for this work that not less than a dozen universities and teachers' training schools are offering courses for those who are to labor in this field. In New York, five great departments of the city government asked the Board of Estimate this year to provide facilities for diagnosing mental deficiency. The medical examination of immigrants now actually centers upon the diagnosis of feebleminded although only a few years ago this aspect was almost ignored. Such illustrations might be multiplied almost indefinitely. They only serve to show how popular attention has turned toward feeblemindedness and its problems.

It is not within the scope of this paper to consider the causes which have been responsible for this great extension of interest in feeblemindedness. The discovery and popularization of certain psychological tests which aid very greatly in disclosing feeblemindedness have been a most important factor but it seems likely that the chief cause has been the present tendency to break down the so-called anti-social groups into their component units for purposes of study and control. For many years criminals, paupers and backward children were studied as *groups*, with amazingly few results. The study of the *individual* men and women and boys and girls who constitute these groups has, on the contrary, thrown a flood of light upon the problems involved. Such studies show always the overshadowing importance of feeblemindedness.

Determination to Deal Effectively With Feeblemindedness.

It is very apparent that this new and widespread interest in feeblemindedness is not an academic one. It is coupled with a determination equally widespread to deal with feeblemindedness in a manner worthy of the intelligence and practicability of the American people. The State commissions which are at work have all been instructed not merely to study the problems of feeblemindedness but to bring back to their legislatures some practical suggestions for dealing with these problems. This movement begins under some particularly favorable auspices. It concerns itself chiefly with childhood, for the best measures of prevention and care are applicable during real childhood, and feeblemindedness is but a continuing childhood, which endures no matter how many years the feebleminded individual passes upon earth. This fact insures at once a high degree of sympathy and interest. It is within our power to bear the cost of dealing effectively with feeblemindedness for we

* Read at meeting of the Society of Medical Jurisprudence held November 13, 1916.

are already meeting the much greater cost of failing to deal with it. The movement to provide for the feebleminded is advantageous equally to the individual as well as to the race—a happy combination which does not exist in some other activities for ultimate human betterment. The present interest in conduct disorders, notably criminality, lends impetus to the movement to provide for the feebleminded. The main issues in the program for dealing with feeblemindedness are simple and not the subject of serious controversy. Thus little seems to be lacking to insure rapid progress and ultimate success in attacking this gigantic social problem.

While there is much that we do not know about feeblemindedness, we are in possession of a sufficient body of undisputable facts to warrant the adoption of an extensive program for dealing with the mentally defective. We know how to determine the existence of feeblemindedness in the vast majority of cases which are presented for examination; we know that the best method of prevention is continued institutional care; we know, within broad limits, the kinds of institutional care which are best for the individual and for society; we know some methods of dealing with feebleminded children in the school; we know some of the conditions under which the feebleminded may be permitted to remain in the community with comparative safety. What is chiefly lacking is not knowledge, nor general interest, nor a determination to deal with the problem but, in nearly every State, a framework of law and an administrative mechanism based solidly upon law that will make it possible to carry out measures already clearly indicated.

Existing Laws Fail to Provide Foundation for Successful Work.

At the very outset in our efforts to put what we know about feeblemindedness and its prevention into practical effect, it is necessary to examine the framework which the law provides. Although adequate provision for the feebleminded will be even more to the advantage of the feebleminded themselves than it is to society, the very nature of the provision required makes it necessary to carry out plans without the co-operation of the chief beneficiaries and often directly in opposition to their wishes. The compulsory detention for long periods of time and often for life of a great number of free-born American citizens cannot succeed unless it is firmly grounded upon laws enacted with the full approval of the American people. To embark upon any other course is to court disaster.

No laws exist which will enable us to carry out an adequate program for dealing with feeblemindedness without unjustifiable distortion of the intent of such laws. The few laws relating to feeblemindedness which are already upon our statute books were enacted during a period in which there was little popular knowledge of the subject and an almost complete absence in the various States of any desire or of any plans for dealing with more than the most obvious and pressing needs.

In making some suggestions as to the kind of laws needed, I am fully aware of the incapacity of members of my own profession to give specific advice regarding the framework of law which we must erect to deal with feeblemindedness. This is the work of lawyers and judges and the solution of the many intricate points involved calls, it seems to me, for the very best legal learning and judgment which the country has to offer. The part of my own profession and of the social workers and teachers who come into direct contact with the needs of the feebleminded is to express these needs in terms which will aid the members of the legal profession to see the problems clearly so that they may devise the mechanism needed for their solution.

Commitment to Institutions.

At the present time there are fifteen States in which there is not a word of law regarding the commitment of the feebleminded to institutions as such. In these States if feebleminded persons are forcibly detained it must be done by calling them insane and grotesquely twisting the insanity law to cover their especial needs. However reprehensible such a practice is, the motive which dictates it is often a humanitarian one. In many otherwise enlightened States the only way in which a feebleminded person can secure institutional care and protection is through this means. Hardships often result and in some instances the most absurd situations arise. Within a few weeks an idiotic infant, only six months of age, was solemnly convicted by a jury of his peers and presented at the doors of the State institution for the insane in Georgia for admission.

In the earlier days, when beds available for the feebleminded in public institutions were much fewer than they are at the present time, it was considered a very great privilege to admit a new patient. The laws of many States reflect this attitude and are filled with express prohibitions *against* the admissions of all sorts of different classes. Thus in one State no person less than sixteen years of age may secure admission, while in another no person more than sixteen years of age may be admitted and all patients must be discharged to the community when they reach the age at which, for the first time, they become a real social menace. With our present concepetions of the danger of feeblemindedness to society such an attitude seems almost incomprehensible but, nevertheless, only two or three States have enacted laws regarding the commitment of the feebleminded which are based upon the conception that the State provides for their care as much for the welfare of society as for the welfare of the feebleminded individual. Our commitment laws for the insane furnish many useful precedents in devising commitment laws for the feebleminded, but it would be very unfortunate if a short cut were sought by transferring the insanity laws bodily to the problems of feeblemindedness. While the insane and the mentally defective present many of the same problems, they present others which are very dissimilar. It is above all things essential that the commitment of the feebleminded to institutions should be a civil procedure and not a criminal one. It is almost equally desirable that the element of compulsion should be reduced to a minimum. Holding beneath the velvet glove the inflexible right of compulsion, the State should afford every opportunity for voluntary admission for the feebleminded and our institutions should be administered and conducted with the aim of making them the kind of places to which you or I would voluntarily send a defective child.

Commitment to Guardianship.

Detention in an institution for life is, for a large part of the feebleminded population, the State's best assurance of a safe, happy, economically useful and harmless life. Nevertheless, there are a considerable number of mentally defective persons—just precisely how large a proportion we do not know—who could live safely in the community under a suitable system of guardianship and supervision. Such a system of guardianship can best be provided by following the precedents set by our statutes for the welfare of children. Real children, like the feebleminded, are unable to protect themselves; like the feebleminded they are often unable to manage their affairs with ordinary prudence; they lack control at

times over their desires and appetites and conduct, and yet of the million and a half children of school age in New York City but one in every 200 came into any serious conflict with the peace authorities last year. The law, soundly based upon public sentiment, protects real children in the streets, in the factories and in their homes, and it sees that they receive the supervision and guardianship which their immaturity demands. It is essential when considering feeblemindedness from the legal point of view to remember that biologically it is only a condition of continuing childhood. No matter how many years the feebleminded person lives, he remains a child in intelligence, in judgment and in self-control. His childish frame dissolves in the physical conformation of the adult and he becomes capable of reproduction, his knowledge of certain phases of life increases—the man of thirty with a child's mind has used that mind for thirty years and in some ways uses it more deftly than a child does—but, nevertheless, the brain which directs all his activities remains, in its essentials, the brain of a child.

The law in this State provides for the commitment of insane persons to guardians who have power delegated to them to control not only the incompetent's body but his estate. The only way in which a similar guardianship can be established in the case of the feebleminded is by stretching the law regarding the insane or by calling them idiots without regard for their degree of mentality or the fields of life in which guardianship is required. It would seem not beyond the power of the leaders in the legal profession to devise in this country, as has been done in England, a statutory and administrative mechanism whereby the protecting arm of the State can guard the feebleminded throughout life as it now protects those who are children *both* in years and mentality.

Criminal Responsibility.

It is obvious that if we have in our population a considerable group of persons who are children in mentality although adults in years, in stature and in physical activities, we have a group for which we must fix a different type of criminal responsibility than the law has fixed for the rest of mankind. Our reformatories and jails are filled with mentally defective persons whose so-called "crimes" are far more the consequence of their community's neglect and ignorance than of any inherent capacity for wrong-doing on the part of the individual. There is a youth to-day in the penitentiary at Blackwell's Island who, during all his childhood, was recognized as feebleminded, and spent his school days in the ungraded classes. Soon after he left the ungraded classes he was sent to the institution which the city maintains for the feebleminded at Randall's Island. Thus as a school child and as a dependent adult his mental defect was recognized, and the city dealt with him squarely upon that basis. But having to leave Randall's Island on account of the limited capacity of that institution and the enormous pressure for the admission of new cases, he became a vagrant. The city possessed a suitable mechanism for dealing with him as a feebleminded child in its educational system and in its charitable activities, but, when he was accused of misconduct, no such mechanism existed. So now the same boy who was feebleminded in all other relations of life is regarded as a criminal and is in danger of being converted into one by the same city which intelligently modified its educational system to deal with him and his kind. Criminal responsibility, therefore, must be defined more justly and more usefully in the case of the feebleminded than it is at the present time.

English Mental Deficiency Act.

These problems are not peculiar to our own country. Even before the present general interest in feeblemindedness began to extend in the United States, England had turned its attention to this subject and had appointed a Royal Commission on the Care and Control of the Feebleminded. For four years this commission studied the subject in all its phases, visiting many different countries and setting afoot inquiries as to the relationship existing between the feebleminded and education, crime, alcoholism, pauperism, illegitimacy and heredity. This commission collected an immense body of valuable information upon the subject—such as exists in no other country—and presented for the consideration of Parliament an act dealing with feeblemindedness in practically all the important relationships of life.

This Act—the Mental Deficiency Act of 1913*—defines all classes of mental defective persons and prescribes under what conditions such persons shall come into the jurisdiction of the authorities established to deal with mental deficiency. The Act gives to the local educational authorities the duty and responsibility of ascertaining which pupils are feebleminded and providing for their training and care during their entire period of school life, and it expressly provides that no cases under the jurisdiction of such authorities shall be forcibly sent to institutions without the approval and consent of the local educational boards.

The Act very carefully provides for the administration of the property of the mentally defective, for their protection (providing punishment for those who wrong their bodies or estate), and for their safe guardianship in the communities, either upon parental or governmental application. The Mental Deficiency Act as it was finally passed by Parliament represented the work of the best minds in England in the various professions directly concerned with the problem. Some objections were raised in the early stages of its progress upon the ground that it interfered with the liberty of the subject and created a class in the community not contemplated by the law. This objection was met by the statement that the Mental Deficiency Act was in reality a new charter of liberty for the feebleminded. It extended to them for the first time assurances of personal safety and opportunity to compete for happiness in life on even terms with their equals—rights which are among the most sacred possessions of a free people. It took them from the streets and the highways where they had been the defenseless prey of lust and greed and placed them in an environment created especially to meet their very particular needs. It lifted from the few who were ill fitted to bear it the heavy burden of their maintenance and placed it upon the whole community. It enabled the watchful eye of the State to follow them in all their relations of life and its strong arm to protect them wherever and whenever danger might threaten. The purposes of the English Mental Deficiency Act were primarily humanitarian and directed toward the welfare of the most helpless subjects of the King, but it provided a means by which to stop a steady and increasing drain upon the nation's resources. By providing lifelong institutional care or lifelong community protection for those who could transmit their defect to others, the passage of this Act constituted the first real step towards the extinction of hereditary feeblemindedness.

Attempts to Adapt English Mental Deficiency Act to Conditions in This Country.

In spite of the very apparent difficulties in the way

* Copies of this Act and of a book entitled "A Guide to the Mental Deficiency Act," by John and Samuel Wormald, can be obtained from any firm importing English books.

of adapting to the needs of one country a law devised with reference to the local administrative agencies to another, there have been a few attempts to apply some of the principles of this great English law to the needs of our own States.

The best example of a commitment law based upon the English Mental Deficiency Act is that which became effective in Illinois in July, 1915. The Illinois commitment law was framed by a committee appointed by the State Charities Commission representing the medical and social organizations most interested in mental deficiency. It defines a feebleminded person as one who by reason of mental defectiveness of a certain specified type requires supervision, control and care for his own welfare or for the welfare of others. It provides for adequate medical testimony as to the existence of mental deficiency and adequate testimony as to circumstances which make the individual so afflicted in need of care and control. It gives the criminal courts power to inquire into the mentality of those who are brought before them charged with crime, it provides for commitment to guardianship, and it makes provision for the protection of feebleminded persons in the community. The weak feature of the Illinois law, compared with the English Mental Deficiency Act, is that it does not provide an institutional system, a plan of central and local supervision and administration, and facilities with which the schools may perform the important part of the task of dealing with the feebleminded which is by common consent assigned to the educational authorities. Those interested in this matter would do well to study carefully the Illinois law because it represents the most important effort in this country to provide a legal mechanism for dealing with more than the institutional aspects of mental deficiency.

Summary and Conclusions.

I have tried in the brief time at my disposal to outline some of the general defects in the facilities which the law now provides for dealing with mental deficiency. I have invited attention to the English Mental Deficiency Act not necessarily as a model to be closely followed in efforts to deal with the same subject in America, but as an example of a great constructive effort to face squarely the issues raised by an enormous social problem. I do not feel that the members of my profession can go much further except to place every scrap of information regarding mental deficiency at the disposal of those who are to provide our own State with a legal structure which will enable us to deal effectively with it. I want to urge—as earnestly as I can—the lawyers and the lawmakers of the State to turn their attention to this task. Surely the governmental machinery of an enlightened American commonwealth is flexible enough to permit us to devise practical means of dealing with members of society who never become men and women

The achievement of this great object will not be furthered by misunderstandings between the two great professions which have most to do with it. There is a feebleminded girl in this city whose unfortunate defect has raised issues far wider than those which affect the sordid little tragedy which a great city's carelessness brought into her own unimportant life. This girl is feebleminded, but not because any doctor has said so; she would be feebleminded in the wilds of Africa, where there are no doctors, if she had been born there with the same histological defect in the construction of her central nervous system. She was the prey of those who saw only her womanly body and not her childish mind. She came before a learned judge to whom the facts in her case were well presented. The judge did not examine the law to see how its mighty arm might be extended to this child in need of a control more effective than that exerted by her deformed brain. He did not conduct the inquiry so as skilfully to bring out and delicately to adjust the rights of the individual and the rights of society in this particular case. Instead he selected from the mass of testimony regarding her mental condition and the means by which it had been determined a few unimportant points which, apart from their setting, could be made to appear trivial and silly. Then he skilfully twisted the proceeding into an attempted persecution of an unfortunate victim and the methods of science into a game for fools. The medico-legal problems of feeblemindedness will not be solved in this way. There are defects in our best methods of mental examination; there is much that we do not know about the nature and manifestations of feeblemindedness, but there is, nevertheless, a solid body of facts which enables us to detect feeblemindedness in all but a very small proportion of cases.

Certain psychological tests have been devised which make it possible to determine with really remarkable accuracy the rate at which intelligence develops and the level which it reaches. The level of intelligence cannot be determined in all cases by these tests alone, however, and the very important practical issues of the ability of the individual to support himself and to keep out of trouble often depend chiefly upon other factors than intelligence. The emotional stability of the individual and the amount of emotional responsiveness, for example, profoundly influence conduct, as does the amount and distribution of the output of energy. Of course, below a certain level of intelligence, such attributes, however intact they may be in themselves, are borne under by the dead weight of intellectual defect. Under such conditions an output of energy which might lead to economic fitness leads only to disorders of conduct. Moreover, various emotional and volitional reactions, the source of which is not clearly apparent at the time, may lead to failure in performing intelligence tests or to confusion and inaccuracy in the interpretation of their results. Therefore, however useful these psychological tests are for determining, within broad lines, the rate of intellectual growth or the level of intelligence attained, they can not be relied upon, alone, in making the diagnosis of feeblemindedness. That must be done with all available data at hand, and, in my own opinion, should always rest in the hands of a physician who has had special training in psychiatry. This condition was adequately met, however, in the case which I mentioned and the hasty and ill-considered ridicule of the judge was directed toward the best combination of methods which we possess for determining mental deficiency.

It is impossible to overestimate the harm which can arise from clouding the really important issues of feeblemindedness by such controversies as these. The momentous problems which have grown out of our failure to deal with mental deficiency require for their solution the absolutely united efforts of lawyers and law-makers, physicians, educators and social workers. Such meetings as this show that co-operation can readily be obtained in the study and discussion of the problem. If such co-operation can be secured and maintained in urging these matters before the Legislature success is assured.

We may set ourselves the task of providing an adequate framework of law for dealing with feeblemindedness, secure in the belief that its accomplishment will not only bring a new world of security and happiness within reach of the mentally defective, but will remove from society a menacing shadow, which grows every day and every hour during which we ignore its existence.

STONE IN THE BLADDER.*

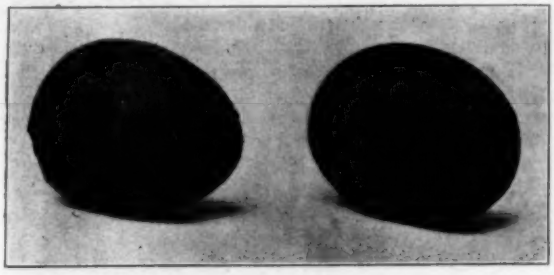
HENRY H. MORTON, M. D.

CLINICAL PROFESSOR OF GENITO-URINARY LISEASES IN THE LONG ISLAND COLLEGE HOSPITAL; GENITO-URINARY SURGEON TO LONG ISLAND COLLEGE AND KINGS COUNTY HOSPITALS AND THE POLHEMUS MEMORIAL CLINIC, ETC.

Brooklyn, N. Y.

This man has two stones in his bladder. I will remove them by a suprapubic cystotomy, after which I will discuss the general subject of stones in the bladder.

Operation—Incision is made in median line exposing the bladder. Stay sutures are introduced and the bladder opened on the anterior aspect. On exploration with the finger two large calculi are felt and removed with stone forceps. The bladder is closed in two layers with cat gut sutures, the muscles united with cat gut and the skin closed with silk worm gut. A gauze tampon is placed in the space of Retzius at the lower angle of the wound and a Pezzer catheter is introduced into the bladder for drainage.



Two vesical calculi removed at one operation by suprapubic cystotomy.

While Dr. Read is closing up the muscles I will say a few words on the general subject of stone in the bladder.

The first thing this patient noticed in regard to the present trouble was that about ten years ago, at irregular intervals, he had some gravel, as he said; that is, little bits of sand deposited in the urine. It varied in size from sand up to the size of the head of a pin. Sometimes it would be very small and sometimes easily noticeable. Two years ago hematuria began, and he has had it about ten times in that time. It would vary from a very small amount up to a quantity so that the patient thought he was passing pure blood. He passed blood last about a month and a half ago. About two years ago he began to have pains in the penis. They were sharp and sticking in character, but were not present every time that he voided urine. These pains began in the bladder region and went to the end of the penis. Pain in the end of the penis is significant. Two years ago he also began to have an irregular flow of urine. He would begin to urinate and the stream would suddenly become irregular, shut off and then go on again. So you see we have the cardinal symptoms of stone in the bladder.

1. Pain.
2. Increased frequency of urination.
3. The presence of blood in the urine; and,
4. Sudden stoppage of the stream.

Urinary examination showed a quantity of albumin, acid reaction. Microscopic examination:—No crystals of any kind seen, but there were hundreds of pus cells, a few epithelial cells and no casts. There was considerable sediment and deposit of pus in the urine after it had been left standing in the vessel.

* A clinical lecture delivered in the Long Island College Hospital.

There you get a history with those four cardinal symptoms, yet that man drifting about Brooklyn had consulted six or seven different doctors. Some told him he ought to have a cystoscopic examination and that he probably had a stone in the bladder. Others said he had no stone in the bladder; that it was simply a case of cystitis which could be cured with medicine. Finally he came under the care of Dr. Harris and, from the history, he assumed that he had a stone in the bladder, and brought him to me with a request that I do a cystoscopy on him. Cystoscopy showed two stones lying in the bladder, very distinctly, of course, as you can imagine from their size, and the patient consented to operation.

The frequency of stone varies according to the climate and location. In India, stone in the bladder is exceedingly common. The men who are operating in the East Indies have an experience of thousands of cases, which we cannot begin to approach in our big metropolitan hospitals. Whether it is the diet or whether it is the water or something in the method of living that seems to predispose to the formation of stone, I do not know. In this country we do not see stones so very often. We see, perhaps, half a dozen cases in the course of a year in this hospital, where we have a very rich material in the genito-urinary line.

The thing that interests the physician is to recognize such a case. The diagnosis of stone in the bladder is very easy; in fact, it is one of the easiest diagnoses to make in all the line of genito-urinary work. In the first place, we have the symptom of pain, which is peculiar in character. It comes on at the end of urination and is referred to the end of the penis. It does not exist when the patient is sitting quietly in a chair or lying down quietly. It is increased by riding in a jolting wagon, and it is increased mostly in intensity at the end of urination. Ordinarily, the stone will roll to the back part of the bladder when the patient lies down, and when the bladder is empty the muscular contraction of the bladder squeezes on the stone and forces it down on the posterior urethra, which, as you know, is very sensitive, so that is the reason why pain is felt when the bladder is empty and at the end of urination. The pain is always referred to the end of the penis, about the frenum, on account of the distribution of the nerves.

Increased frequency of urination comes as a result of the cystitis, which the stone always establishes. Cystitis is a constant concomitant of stone. It is safe to make the statement that stone in the bladder cannot exist without the presence of cystitis. Blood comes in these cases of stone in the bladder with the urine and bleeding is intermittent in character and duration. Blood is more or less present, and an intermittent hematuria is always a characteristic of stone. The sudden stoppage of urine in full stream is brought about by the stone falling in front of the vesical outlet and acting as a ball valve, closing the orifice.

Those, then, are the four cardinal symptoms of stone in the bladder. Other conditions may produce similar symptoms, such as a tuberculous cystitis with ulcers of the bladder or papilomata, but those four symptoms will always point to the fact that there is a stone in the bladder, the presence of which can only be cleared up by a cystoscopic examination. It is not enough to trust to bladder washings or internal medication with an idea of curing the condition. The physician should not attempt to cure a patient when he does not know the cause of the trouble. In making a diagnosis of stone in the bladder, the history is suggestive. One

may suspect stone, ulcer, tumor, or cancer of the bladder, but the history is suggestive of serious trouble. Having obtained the history the next step is to pass a Thompson searcher, which I used here to detect the stones. It is a little like a catheter and has a sort of a sounding-board at the end and the slightest click is easily perceptible, as it comes in contact with the finger. For many years, until the cystoscope was invented, the Thompson searcher was the only instrument we had to diagnose the presence of stone, and it was surprising to see how the old surgeons who were limited in the matter of facilities for discovering the presence of stones, became adept in the use of this instrument. The elder Keyes could put a Thompson searcher into the bladder and could tell the size, shape and number of stones present. The men of that class who had but one instrument to depend upon had, of course, to make themselves highly expert in the use of it. The searcher is, of course, an uncertain instrument. We used to miss stones very often with it. They would be lying in the post-prostatic pouch, perhaps, and it would miss them entirely. I remember one case in particular, which I saw many years ago, before the cystoscope was in common use, where I put a searcher in a man's bladder and did not find anything. A year or two later, strangely enough, he came back to me to be operated upon for stone in the bladder. I opened the bladder and removed a half a handful of little stones, like chicken feed, which I had missed entirely with the searcher. If you want to do something for your patient and you have an idea that he may have a stone in the bladder, introduce a Thompson searcher and move it about, and if the stone is large, you will get a click, but if you don't get a click do not be too sure there is no stone there.

The instrument we depend upon today for diagnosis is the cystoscope and it is indispensable for determining the presence of stone in the bladder. With the cystoscope one can see the stone just as plainly as I can see the floor, provided we have a clear fluid. We can see the size, shape and location of the stone and can tell the number of stones, and also tell if they are fixed encrustations to the wall of the bladder or are placed in a diverticulum in the bladder; in fact, without previous cystoscopic examination in the bladder I think a man ought not to operate on stones under ordinary conditions. With those four cardinal symptoms we should suspect a stone in the bladder, but we may cystoscope and perhaps find no stone, but a tuberculous ulcer or papilloma or carcinoma, whenever we get those four cardinal symptoms we should make a cystoscopic examination for the purposes of confirmation of diagnosis.

The *x*-ray is indispensable in stone in the kidney, but in stone in the bladder it stands way behind the cystoscope from the point of a diagnostic instrument. In this case we had an *x*-ray taken to fulfill all diagnostic requirements, but it is not a satisfactory plate and does not show a shadow. I made the diagnosis with the cystoscope, and we might say the *x*-ray was only a super-refinement of diagnosis.

Once in a while you strike a case where cystoscopy is impossible, and you do not get anything with the Thompson searcher. Then the *x*-ray is the only medium whereby we can make a diagnosis, and if the machine is a good one it ought to be possible to find a shadow with it.

The question of treatment is of next importance. There are a great many advertisements of mineral spring water, and they are said to possess great dissolving properties for stone in the bladder and stone in the kidney. The reputation which some of these springs have for dissolving stones has come about in this way:—A stone is made up of an albuminous framework. There are concentric layers built up around that—phosphates. Once in a while, it is possible to change the specific gravity of the surrounding fluid and the albuminous framework of the stone will soak up and absorb some of the fluid. Then it swells and expands and bursts the layers of salts surrounding it. As an example you see while walking in the country, rocks that have been burst asunder by the action of the rain falling into cracks, freezing, expanding and bursting the rocks.

Once in a while that will happen with a small or soft stone after drinking mineral spring waters, but it is so rare that you cannot count on it at all. So the mineral springs are good for the hotel keepers and the people who sell bottled water and for the people who advertise them, but they are not to be relied upon as far as therapeutics are concerned. The only way to get rid of a stone is to operate on it.

We have several forms of operation. The one which is preferable and which can be done on certain stones, if they are small enough, is litholapaxy, which consists in introducing a crusher into the bladder, crushing the stone and then washing out the fragments. Litholapaxy is not a new operation. A hundred years ago Civiale, in one of the Paris hospitals, devised a machine for crushing stones in the bladder, and it was used considerably. At that time they used to crush the stone and leave the fragments in to be passed by the patient through the urethra and he would pass as many as he could, but big fragments would be left, and these they would again crush by reintroducing the instrument into the bladder. It remained for Bigelow of Boston, forty years ago, to devise an instrument which is the most perfect that has ever been produced, Bigelow's lithotrite. It is introduced into the bladder, the jaws of the instrument are opened, the stone rolls in, the instrument is locked by a turn and then twisted down and the stone is crushed into fragments. A number of crushings are made until the stone is comminuted into small bits. Then the evacuating tube is introduced and the comminuted debris are pumped out.

The advantage of litholapaxy over a cutting operation is, of course, in the short convalescence following the crushing operation.

A short time ago I had a gentleman about 70 years with a stone in the bladder. The prostate was not enlarged, and I was able to crush the stone and get rid of all the fragments. In a week he was back at business again. An operation would have taken him three or four weeks to get over, so that where it is possible litholapaxy is the one of choice. Of course, the ideal stones for crushing are the small ones of less than an inch in diameter. A big stone, such as those removed from this man today, even if they were single, would have taken too long to crush into small fragments. The risk of life would be greater from a crushing than from a cutting operation, so for small stones crushing is the operation of choice. Another requisite, to my mind, for a successful crushing operation is that the prostate must not be enlarged. If the prostate is enlarged and we introduce the crusher we are apt to miss the stone. For that reason I am always inclined to do a cutting operation on patients with middle lobe projections. You can put down enlarged prostate as a contraindication for a crushing operation.

The cutting operation, perineal lithotomy, or taking

the stone out through an incision in the perineum, is the very oldest form of operation we have. In the time of Hippocrates it was commonly performed, and there was one clause in the Hippocratic oath which was insisted upon by Hippocrates when he gave the oath to his pupils, and which, by the way, is the same oath that we all take today, with the exception that they promised not to cut for any stones, but to leave that to men especially versed in that particular line of procedure. That clause has been omitted from the Hippocratic oath as we take it, but the reason that was put in was because the men who cut stones in those days did nothing else. They were not physicians or surgeons; they did not have any general medical or surgical training, but simply had a knack for operating and did a great many operations, and they developed a certain skill for doing the operation, just as in the country today, there are certain men who travel around castrating horses and pigs, and they do it so often that they become very skillful at it. There are many descriptions of the operation as it was done five hundred years ago.

It was a favorite operation with the old surgeons, but even then it was very often left in the hands of men who did nothing else and went about the country as itinerant stone-cutters. Frére Jacques was one of those. He made some changes and some improvements as he thought, in the operation. Although the operation was done by recognized surgeons, still a great many cases were done by these itinerant practitioners.

In those days the operation was called "cutting on the gripe," and it was done by the patient being held in the classical lithotomy position, which we use today with the exception, however, that instead of the patient being held on a table, he was held on the knees of two strong men who were able to control his struggles; the stone-cutter put one or two fingers in the rectum, so as to fix the stone and steady it; then with a knife he would make a sweep across the perineum and cut down, layer by layer, until he succeeded in getting the stone out. Sometimes they used forceps and sometimes a gorget.

There were all sorts of instruments devised for improving the operation, but as an operation *per se* it was practically done in the way I have described.

The after-treatment in those days was very curious —boiling oil, pitch and all sorts of things. The mortality was very high. Many patients, probably one-third of them, died, whereas today we expect a very small mortality rate in all cutting operations. But perineal lithotomy held its own, although it was changed and modified in many ways. For many years the old perineal lithotomy was done practically as we do an external urethrotomy today by passing a grooved staff through the urethra into the bladder, pushing a long, thin bladed knife along the groove until its point was well within the bladder and then withdrawing it with the edge directed obliquely downwards and outwards, cutting through the left lobe of the prostate and the muscular structures of the perineum. This made a large wound through which the stone could be extracted with forceps.

It was an operation which the old surgeons took great pleasure in describing and greater pleasure in performing. In reading the old books there are many interesting descriptions by those masters of an earlier time of their method of taking stones out through the perineum.

Even today, this operation is still useful, and we remove stones now and then through the perineum, particularly if they are very small. They might be crushed, as a rule, but the operation is particularly indicated in the presence of stricture; in atony of the bladder, where there is no expelling power, and where, by keeping the bladder empty for some time, the bladder has a chance to recover its tone; it is also useful in cases of pyelitis or pyelonephritis; for in these cases litholapaxy is more dangerous than a clean, cutting operation, so perineal lithotomy, even today, has its place in certain selected cases. Most of the stones, however, which are removed by a cutting operation, are taken out by the suprapubic route.

Until 400 years ago all stones were taken out through the perineum, but in 1550 Pierre Franco devised the operation of suprapubic cystotomy. He did it a great many times and did it successfully. It fell into disuse, however, on account of the high mortality accompanying it, on account of the lack of aseptic measures. Then the practice of aseptic surgery began and the operation was again taken up, and today it is the operation usually done for the removal of stone. Suprapubic cystotomy is peculiarly adaptable to large stones. Such stones, as I took out today, would be very difficult to take out through an opening in the perineum. It is adaptable to big stones, and thick encrustations of the bladder wall, or stones lying in a dilated post-prostatic pouch. We had in this hospital some years ago, a patient of Dr. Read's, who had had a suprapubic prostateetomy. He had been operated upon by a very good Brooklyn surgeon, but the wound did not heal, and the fistulous opening persisted. We operated on him, but we could not seem to get the bladder healed. We accordingly opened him up again and found a diverticulum in the bladder wall, which was filled up with a big stone.

After removing the stone, the fistulous opening in the bladder healed up and the patient has been very comfortable ever since. There has been no recurrence of the stone, so that in stones which are lodged in diverticula the suprapubic route is the one which should be chosen. This also holds true of cases of hypertrophied prostate, for in the presence of a large prostate the distance through the perineum is so great that it is difficult to reach and extract a stone in the bladder, but if we go in from above it is a simple matter to get at the stone; so in all cases of hypertrophied prostate, when there is a stone lying in the post-prostatic pouch, the operation of suprapubic prostatectomy is indicated, as well as removal of the stone.

32 Schermerhorn Street.

Detection of Scanty Tubercle Bacilli in Sputum.

O. H. Forssell describes (*Svenska Lakaresallskapets Handlingar*, Stockholm, 1916, XLII., 449) the method he has employed with success since 1903, in concentrating the tubercle bacilli in samples of sputum that contain but few of them. He makes a point of collecting the sputum for 12 or 24 hours in these doubtful cases. He mixes 50 c.cm. of this with 450 c.cm. of a clear saturated solution of calcium hydrate, and shakes up well in a special glass vessel 6 cm. in diameter and 33 cm. long, which holds about 550 c.cm. Quite a brief period of shaking is found to give a completely homogenous mixture, and this is allowed to stand for 24 hours. The vessel is conical in shape below, and ends in a tube fixed at a right angle and furnished with a tap 12 mm. in diameter. At the end of the 24 hours two centrifuge tubes (each holding 15 c.cm.) are filled at the tap; these are rotated for 10 minutes (6-7,000 revolutions a minute), and the sediment collected from them is fixed on a microscope slide, stained, and examined for tubercle bacilli in the usual way. (*Practitioner, Nov.*, 1916.)

Patients with enlarged thymus do have attacks of pulmonary edema, but they generally recover from the early attacks only to perish later of some intercurrent trouble.

THE CAUTERY TREATMENT OF INOPERABLE UTERINE CANCER.*

H. J. Boldt, M. D., F. A. C. S.
New York.

The honor conferred upon me by the request that I should speak to you on the treatment of what is called inoperable cancer of the uterus by heat is deeply appreciated. At the outset permit me to say that I have accepted the invitation, not with any thought of being able to impart anything new, much less to tell you something that you do not already know, but from the selfish motive to learn from those present what experience has taught them. For, after all, it is upon the cumulative experience of many men of good and unbiased judgment that we must rely for the clearing up of moot points.

The writings of your late fellow citizen, John Byrne, are probably still vivid in your memory. And while some of us may differ from his views in certain respects, we, I am sure, all agree that he was thoroughly conscientious and in every direction honest. More than any other man was he instrumental in bringing about a recognition of the value of heat for the relief of patients ill of cancer of the cervix of the uterus. During his time, and by him, the heat emanating from a galvano cautery was used for this purpose, though the condition, from our present point of view, was still amenable to possible radical cure by an extirpation of the affected organ.

No one of fairly large experience with heat treatment of such patients can doubt its efficacy in alleviating many distressing symptoms and in prolonging life. Now and then, the treatment may really cure, though, I am sorry to admit, I have not yet seen such an instance.

I can assure you with positiveness, however, that if properly used, in selected cases, it is devoid of marked risk, so far as life is concerned. But one should be sure that the disease has not advanced to such a stage that the bladder or rectum or both might be injured by the cautery.

At present there is much controversy concerning the introduction of low degrees of heat advocated by Dr. Percy. A year ago there were more partisans for the Percy method than there are to-day. Since we have been able to prove by scientific examination of autopsy specimens, that low heat as advocated by Dr. Percy, has not the penetrating power ascribed to it by him, and since accidents and deaths have followed that form of heat application F. W. Bancroft, New York Hospital, (*American Jour. Obst,* July, 1916.) V. N. Leonard and A. B. Dayton, Johns Hopkins Hospital, (*Jour. Am. M. A.,* May, 13, 1915), and also one case at the New York State Womans' Hospital; likewise an additional case since in the care of Dr. Leonard, who has made further study, as reported to me in a private communication, in which the dangers of low degrees of heat are well shown, but which I do not consider necessary to dwell upon at this time, since Dr. Leonard has not yet published his conclusions and results of his investigations, in which microscopic sections of the involved and cauterized areas were made, many have come to regard Dr. Percy as overenthusiastic and mistaken in his conclusions.

I am firmly convinced that high degrees of heat are not only just as efficacious, but preferable, because of the shorter time required to do a cautery operation and because, with proper care, there is no more danger of secondary injuries than with low heat.

It was asserted during a discussion of my first address on this subject, at the meeting of the Southern Surgical Society, held at Cincinnati, that some patients in whom the uterus could not be removed, and who were treated with the method advocated by Dr. Percy, subsequently became operable. That is to say that the uterus could be removed by abdominal hysterectomy. An examination of these uteri did not show any evidence of cancer. My contention was, and is, that these uteri were immobile because of non-malignant inflammatory infiltration; and as a result of the heat applied, the infiltration died out and subsequently subsided, thus making the uteri mobile.

To disprove my contention it is necessary that the abdomen of such patients be opened and a small piece of tissue of the infiltrated parametrium, a short distance away from the cervix be excised and submitted to microscopical examination by a thoroughly competent pathologist. If cancer shows in this tisuue, and if such uterus becomes so mobile that at a later period it may be excised by a radical operation—by which I mean an extensive excision of the parametria—(the heat treatment having been used at the time of the preliminary abdominal section) and the pathologist does not find evidence of cancer in any part of the uterus or the connective tissue, then my contention is wrong, and Dr. Percy's views and those of the gentlemen who now coincide with him are correct.

In those instances cited at the time of the meeting alluded to, my belief is that the cancerous invasion was destroyed entirely by heat, which can be done easily if it is not deeper than the heat penetrates; but that no cancerous invasion of the parametria was present in those patients.

The technic adopted many years ago has been reverted to again, after discontinuing the method of Dr. Percy as a routine surgical intervention with a cautery.

Technic. After making a careful recto-vaginal-abdominal examination of the patient's pelvis under ether to ascertain to what extent the pelvic organs are involved, and to avoid cauterizing, if the disease has encroached too far toward the bladder and rectum, the easily breaking down structures are rapidly curetted off with a large cancer curette, such as is made by the Kny-Scheerer Company and Geo. Tiemann and Co. The cavity is then tightly packed with gauze (styptic gauze if the oozing is profuse) to control to the greatest extent possible, the bleeding resulting from the curetting. The abdomen should now be opened and a careful examination of the pelvis be made from within. The internal iliac arteries, ovarian and uterine arteries should be tied whenever this is feasible. I say whenever this is feasible, because I have found occasionally, in very obese, short-trunked women, the technic is so difficult that it is a question whether one should undertake it, considering the time it takes under such circumstances.

I may say here, that the abdominal part of the work has been added to the technic of my early work in this class of patients, because of the recommendation of the late Dr. Pryor, who was the first to tie the internal iliac arteries to control the bleeding from cancerous uteri. Then, too, Dr. Bainbridge of New York, commenced to do very methodical work in the case of such patients, by ligating all blood-supply and removing pelvic glands as much as possible. Percy subsequently advised that in all instances of patients to be cauterized, the abdomen should be first opened, and an assistant

* Read by invitation at the Kings County Homeopathic Medical Society, Dec. 27, 1916

must keep his hand in the pelvis to ascertain the degree of heat transmitted by the cautery point, and to guide the vaginal operator during the progress of cauterizing.

From my point of view this abdominal work is of the utmost importance, and we should never neglect it if the best results are to be obtained. Moreover, I do not consider that an assistant's hand in the abdomen is desirable throughout the entire cauterizing process; I prefer to control the interior myself with one hand, after having cauterized the greatest part from below, and rather have an assistant guide my vaginal hand whenever I deem this necessary.

After the ligating of the blood-vessels, when we are ready to let the associate guide our vaginal work with his hand in the abdomen, the gauze should be removed from the vagina. By this time, as the result of the tight tamponade, profuse oozing has usually ceased. We then take a suitable vaginal cooling speculum and begin the cauterization. The cooling speculum will positively prevent the burning of parts not desired to be cauterized. Those devised by me many years ago are of smaller calibre and somewhat longer than those used by Percy. Use whichever is most suitable in the case. I bring the cautery-point to about white heat. It will, after applying it to the moist structures very quickly cool down to a red heat, and we continue to keep it at that temperature, (red heat) by means of the rheostat, as long as the cautery point is in contact with the tissues. I use a very large platinum dome point electrode made for me by the Wappler Company of New York. At frequent intervals the cautery-point must be removed, the char burnt off, and an examination made of the crater burnt out, so as to have a clear conception of what is being done. The assistant's hand or my own in the abdomen, as the case may be, is a safe guide as to the heat transmitted. Thermometers are not made use of at all during the cauterization.

It takes about two weeks for the eschar produced by the cauterization to be thrown off. One should never use force to separate the eschar; nature will throw it off in time. After it has been thrown off, usually some sanguinous ozzing ensues, but seldom is this profuse enough to require attention. Should it, however, be too profuse, packing the cavity with styptic gauze will control it. Afterwards, the oozing having subsided entirely, I know of nothing better than the application of low heat, but only for a short period, say from 20 to 30 minutes. This is the time for utilizing Percy's method. It is not necessary to reopen the abdomen for this purpose, although I have done so.

Let me repeat that, when the cauterization has been extensively carried on I prefer to have my own gloved hand in the abdomen, so that with my other hand I can better guide what additional cauterization is to be done.

While knowing the reputed value of Radium therapy and of Roentgen Ray therapy, I have omitted it in my brief address, since the consideration of these therapeutic agents would bring us into too long a discussion.

Finally, let me say that, so far as I have seen, the term "Wertheim operation" is used nine times out of ten, in describing radical extirpation of the uterus for cancer, when in reality the operation done is only a panhysterectomy. This refers only to operations that I have seen done in this country.

39 East 61st Street.

Lane says that if any apparently septic focus is observed during an operation, a culture and a vaccine should be obtained from it, and employed at once should symptoms of infection of the wound develop.

PEDIATRIC REVIEW WITH INFANT FEEDING AS PRACTICED DURING THE LAST TWENTY YEARS.

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ATTENDING PHYSICIAN TO WILLARD PARKER AND RIVERSIDE HOSPITALS.
New York.

Twenty years ago the German school taught the necessity for sterilization of milk. The Soxhlet steam apparatus was recommended. Milk was to be heated to 212° F. for thirty minutes. The point made was that all pathogenic bacteria, but chief among them the tubercle bacillus, must be destroyed.

Following these advocates came a series of reformers who protested against the use of steamed milk, claiming that boiled milk or dead milk was the causative factor in deficiency diseases. They found scurvy and rickets and attributed these diseases to the destruction of the live factor in milk, during the steaming process. They advised steaming the milk at 155° F. for twenty minutes. Later this temperature was found too high, and a temperature of 140° F. was advocated.

We were next taught to feed with low percentages of *protein* because the protein element was believed to be the disturbing factor. This latter element has been the subject of critical research. From the demonstration and results of the painstaking labor of Finkelstein of Berlin we learn that proteins can be borne in very large quantities in febrile as well in nonfebrile conditions, and that infants of the marasmic type, can and do assimilate high percentages of protein with ease.

Later the advocates of high percentages of *fat* and cream mixtures had their day, but in recent years we found that the tolerance for fat must be studied cautiously, and one cannot advocate a high percentage of fat for an atrophic of marasmic infant without great risk of causing gastric disturbances, such as vomiting and loose bowels. Instead of being assimilated these high fat mixtures act as an irritant to the gastric mucosa and do a great deal of harm. We can prepare the system for the tolerance of fat by gradually increasing the percentage from 2, 2.5, 3, and so on until 4 or even 5 per cent. is given. Gradual increase rather than sudden increase should be prescribed. Now and then the writer has met with a case of top milk or cream feeding wherein the vomiting, colic, fever and all symptoms of pyloric spasm, were due to the irritant action of the excessive fat.

Many cases of acidosis can be traced to metabolic disturbances due to forced feeding of high percentages which are not properly assimilated. Ammoniacal urine and eczematous manifestations on the scalp, skin of the back, cheeks and body, commonly called the exudative diathesis usually accompany this condition. This has been described in detail by Czerny. The painstaking labor of Casimir Funk has changed our ideas concerning the etiology of rickets, scurvy, beriberi and similar nutritional diseases in which some one factor is lacking. This factor has been chemically isolated and called "vitamine." When vitamines are absent from food there results a loss in the nutritional value to the human system and instead of healthy normal physiological growth, a subnormal condition develops which has been termed "deficiency disease." These deficiency diseases can be corrected if taken in time, by changing the quality of the food. If on the other hand, such faulty feeding is continued a chronic condition results and the bodily frame suffers weakness and a general susceptibility to disease.

Now, what are vitamines? An excellent description of vitamines will be found in an article by Atherton Seidell, *Public Health Report,* Vol. 31, No. 7.

Vitamines are found in the external shell or kernel of the cereals. They can be extracted in the form of colorless needle-shaped crystals. They are necessary as a live factor in nutrition. If we give a cereal minus the hull or shell, we deprive the child of one of the most important elements of its nutrition—namely, its vitamine.

Vitamines are best administered in the form of yeast with yolk of egg. Funk has found that beriberi is not due to an infection or intoxication, but is caused by a deficiency of this vitamine.

The absence of vitamine is noticeable in polished rice, white bread, and starch. If to this food we add yeast or beans then we add vitamines which are required for the development of the organism.

Vitamines are sometimes dependent on the nutrition of the cows, thus we find that milk of cows lacking fresh fodder, as for example in winter, will produce less vitamine. It is therefore quite plausible that the use of such milk may be a factor in the causation of rickets.

Funk states that the vitamines are partially destroyed by modern heating of the milk, and are completely destroyed by the sterilization of milk. But we can add vitamines to milk, and thus render it nutritious and antiscorbutic.

Next in importance to the consideration of the infant feeding problem, we have had the epidemic of poliomyelitis. In a total of 9,000 cases the mortality ranged between 20 and 25 per cent. A careful consideration of the progress made during the last epidemic showed the importance of studying the earliest symptoms when an infant is indisposed. Trivial symptoms such as irritation, vomiting, muscular twitching, the last named seen on the face and extremities resembling a convulsive tic; demand strict isolation and careful observation until a positive diagnosis is made.

Fever is an early symptom of poliomyelitis. During an epidemic we are justified in performing a lumbar puncture as soon as the aforesaid symptoms are noted. These symptoms are described by Colliver as preparalytic phenomena, and with heroic treatment begun early, paralysis can frequently be aborted.

Next to lumbar puncture rest in bed and urotropin has been very successful. Serum from a convalescent case of poliomyelitis used early during the acute onset, the so-called febrile stage is advisable. No more than 15 c. c. should be injected intraspinally immediately after the lumbar puncture has been performed. It is advisable to withdraw 15 to 20 c. c. of spinal fluid unless the same spurts out under high pressure, when 30 to 50 c. c. may be withdrawn with considerable relief to the patient.

155 West 85th Street.

Diabetes and Alimentary Rest.

O. Leyton of London says in discussing the Allen treatment by alimentary rest that it is a satisfactory treatment for cases of uncomplicated diabetes mellitus; that young severe cases become free from sugar and remain free. In this he confirms many observers in America.

Some observers in England have recorded their impressions that the treatment does not prove efficacious in young subjects. Perhaps their failures may be explained by some of their cases having been suffering from pulmonary tuberculosis in an early stage; while in others, the treatment may not have been carried out in its entirety.

Only cases, which have persisted in alimentary rest until the urine has become free from sugar may be considered to have been treated in the way suggested by Allen. (*Practitioner.*

NON-SURGICAL TREATMENT OF ANAL ULCER AND FISSURE.

Alcinous B. Jamison, M.D.,
New York.

The spirit of man incarnates on this plane of existence as a helpless infant, dependent upon others for bodily care, including the use of a diaper, but the moment this garment becomes toxic the anal mucous membrane and the integument about the anus becomes the seat of infection, which results in inflammation. Hygienic attention will relieve the inflamed integument, but the mucous membrane is neglected and the inflammation extends into the deeper structures of the organs and up the bowels. Besides the structural changes that take place in the tissues invaded by the chronic inflammation of the anus and rectum, we find early in its inception the formation of mucous channels or tubes wherever connective tissue is located, which may be between the layers of the mucous membrane or in the connective tissue under it. They are very numerous and find their way down to and under the integument around the anal vent, forming rugae and muco-cutaneous sacs, foolishly called external piles by some ancient writer on the subject.

Chronic inflammation existing twenty, forty or more years has sufficient time to invade all the tissues of the organs, and also the neighboring tissues and organs. The result is that the disease causes abnormal contraction of the sphincter muscles, and the inflammatory exudates bind their fibers together, preventing normal expansion of the muscles, and more or less permanent stricture of the anal canal occurs, adding greater irritation to the anal mucous membrane. Thus, through neglect, matters go from bad to worse, the tissues becoming all the while more friable and nearing the ulcerative state, and at last an abrasion, a rent or a tear in the diseased tissues occurs, and words cannot describe the pain and agony of the sufferer, who often reaches a stage of very great prostration before seeking relief. This delay in treatment is due to the fear of the hospital and of surgery, a well-founded fear, as it is barbarous and useless treatment for the cure of anal ulcer or fissure, slight symptoms of a severe disease as compared to other symptoms that occur. Anal ulcer or a fissure are neither of them a disease, but symptoms, merely incidental in the progress of a chronic disease of many years' duration.

The posterior wall of the anorectal canal is usually the seat of the most severe chronic inflammation; hence the frequency of anorectal ulcer or fissure in that region from the breaking down of the wall or walls of a submucous channel or channels, and at the same time there are dozens of other submucous channels on the sides and in front of the anorectal canal, quite ready to give way from the same causes that resulted in an ulcer or a fissure from the breaking of the wall of one or more submucous channels. A physician who is not mentally embalmed by hereditary treatises on the subject of proctology, will first discern the pathological changes that have taken place in the organ, and wisely adapt his treatment to the restoration of the organ to its normal action with the least possible damage to the organ, or none at all.

As we have said before, the anal and rectal organs have been invaded by a disease for from twenty to fifty or more years. Muscular contraction must take place; also adhesions of the muscular fibers occur and result in some degree of stricture of the anal vent, inhibiting fecal passage over the frail anal mucous membrane, which in due time becomes lacerated, and joy flees from the victim as agony increases, and he wonders how it ever happened to him. It could all have been prevented,

but foresight was asleep, hence the consequences of delay. There is only one sane, sensible and safe treatment for the pathological conditions I have mentioned in chronic disease of the ano-rectal vent that requires no hospital, no surgical operation, no hypodermic injections for local anesthesia, no applications or irritating or painful remedies for weeks or months, no dieting, no insertion of finger or a speculum. The history of the case and external evidence are sufficient for a diagnosis in the majority of cases. The sufferer needs relief at once—not more pain. He wants it all over with, so that his bowels can move without suffering, and that he may eat to gain strength.

The consequences of many years of an inflammation in the ano-rectal organs are undone by simply administering a little somnoform by a specialist, and dilating with the forefingers the contracted and adhered sphincter muscles to their normal expansibility, which requires but a few seconds to perform, and the patient can return home with but little discomfort, while a few will need home appliance for quick comfort to mind and body. This is accomplished by the author's shallow sitzbath pan, as shown by the accompanying illustration.

SHALLOW SITZ-BATH PAN.

Early in my practice I also devised an apparatus for the external application of very hot water to the inflamed and painful conditions around the anus and buttocks.

This device can be placed on a box ten or twelve inches square near a hot-water faucet or a water-heating appliance. Sit on the central cone and add water to the pan through the funnel. When the pan is full of water, any excess will escape through the overflow pipe into a catch basin. Keep adding very hot water every few minutes, as the tissues become accustomed to it, during the hour or two of the treatment. The bath may be repeated very frequently if the case demands it. The hot water relieves pain, congestion and inflammation, and in due time the painful symptoms disappear, and the cause of all the local trouble may be treated with ease and comfort to the patient.

It affords a comfortable seat, and in the center of the pan is a perforated cone for directing the hot water against the anal tissues as it enters from the funnel. The bath is continued for an hour or more with the water as hot as the tissues will tolerate without blistering. Antiphlogistic and soothing remedies are given the patient with the necessary instruments for applying them. In a short time the patient returns full of delight and satisfaction at having escaped an operation. He also has the additional satisfaction of knowing that the future treatments are free from pain, due to the great variety of speculae at command and the skilful use of local remedies. It should be the paramount duty of a physician on all occasions, to cause as little annoyance to the patient as possible.

43 West 45th Street.

Deaths After Wound of Heart.

At a meeting of the Paris Société de Chirurgie (*Paris méd.*, October 7, 1916) Leriche communicated an observation of Desplas and Chevalier of a soldier brought in a dying state to the dressing station three hours after being wounded. No intervention was possible. The autopsy revealed the presence of a machine gun bullet in the front wall of the left ventricle of the heart, three centimetres above the apex. There was besides a vast hemothorax in the left chest (more than 3 litres of blood), with a perforation of the upper lobe of the left lung, and a punctiform perforation of the pericardium, in which there was no blood. Leriche, in calling attention to the fact that the man had lived three hours after such injuries, said that in wounds of the heart death was immediate only in one of six cases.—(*Brit. Med. Jour.*, Oct. 4, 1916.)

A BRIEF STUDY OF THE PHILOSOPHY OF DR. OLIVER WENDELL HOLMES.

J. Danforth Taylor, M.D.,
East Boston, Mass.

In the "rush and bustle of this practical, work-a-day world," when the mind of the busy physician is taken up with the duties of his practice, little time is found for reading much literature that is considered heavy.

Each one of us has our own particular hobby which we love to ride, such as photography, carpentry, mechanics, etc.; with which we rest our tired brain cells and obtain much needed change and recreation.

I wish that I could interest all medical men in the study and enjoyment of the biographies of some of the master minds in the medical world of the past and present.

To read such literature is to become intimately acquainted with those men and their times, to obtain a broader view of life and to fasten in one's mind many important points in the development of medicine and surgery that would otherwise be neglected.

The philosophy and intellectual life of Dr. O. W. Holmes offer food for thought that should be appreciated by all medical men, especially those of Harvard training.

"Know old Cambridge? Hope you do—
Born there? Don't say so? I was too."

The date of Holmes' birth is given as August 29th, 1809. His father was a clergyman of the old school and Oliver had the advantage of being raised among books, and everything written by him shows traits of the student and scholar.

His course of reading included law, so that a man with such an all-around education could not escape being considerable of a philosopher; and his far-reaching views gave him profundity in almost every region of thought.

He lived in the clear atmosphere of the intellect, and relations far beyond his contemporaries were visible to his clear, penetrating vision.

Every woman in the world owes him a debt of gratitude, for he was the first man in America to call attention to the contagiousness of puerperal fever.

In 1842 he noted the fact that this disease seemed to follow certain physicians and at once began to study the cause of the infection. He made the remark that he "could tell what woman would be infected upon learning who had been her medical attendant."

To the few who escaped the disease he ascribed some individual immunity and this fact has been lately demonstrated to be true.

Many of the physicians of that time contended that the disease was due to the "Will of Divine Providence," but Holmes knew better and contended that the disease was due to some kind of miasma and was much pleased when, in later years, it was clearly proven that he had anticipated the bacterial origin of the disease, and that "*dirty paws*" and not any "divine Providence" was the advance agent of the trouble.

For the person who anticipates or introduces radical ideas, there is a Calvary in every town and city of the world and nailed to its crosses of social ostracism may be seen the local criminal with the local genius in the center.

Holmes realized this, for his early investigations in regard to puerperal fever had brought upon his head the anathemas of both the medical profession and the clergy.

Those were the days when theology held full sway in our country, but thanks to the advancement of science,

the older interpretations have become untenable and higher ideals based on scientific reasoning are sought after by a more enlightened race.

The works of Holmes have gone into every library in the world but his freethought writings were so carefully injected into his works that it was some time before the clericals, so to speak, "got wise to him." Then they at once denounced him as a "Freethinker and subverter of Christianity," but so high a position had he attained in the scientific and literary world that "every knock was a boost."

In the "Autocrat" he tells us plainly that he is not a churchman and that he does not believe in "planting an oak in a flower pot." When we examine this book carefully we find a persistent determination to root out theology from the human mind, for the Gods of the past did not suit him. He was a deist only as he worshipped the God of nature, and all through his books we find contempt for ancient creeds and their propagators.

He was fully aware of the fact that religion had its origin in the sex-feelings and that fact is shown in his depiction of Myrtle Hazard and the Rev. Dr. Stokes.

The Pope comes in for his share of ridicule in the following verse,

"Who knows a woman's wild caprice?
It's played with Goethe's silvered hair,
And many a holy father's "niece",
Has softly smoothed the Papal chair".

Some one told Holmes that his thoughts were dangerous, and he replied, "Dangerous to what? Truth will get well if she is run over by a locomotive while error dies of lockjaw if her finger is slightly scratched. The fear of discussion implies feebleness of conviction."

Some of his quotations are radical enough to suit the most rabid. For instance, "The aim and end of our free institutions is to think what we like and say what we think. Iconoclasm is rough but the only way to get at the truth. The whole system of beliefs that came in with the story of the fall of man is gently fading out of enlightened human intelligence and there will be no rest until legendary anthropology with all its dogmatic dependencies is given up. Democratic America has a different humanity than feudal Europe and so must have a new divinity."

Had Holmes combined in one discourse these sentences which he scattered throughout his various books, they would have been rejected by every library in the country.

Said Holmes one day to a friend who had warned him to be careful how he talked about religion, "Religion and government appear to me the two subjects which of all others should belong to the common talk of people who enjoy the blessings of freedom. I do not see anything so fit to talk about or half so interesting as that which relates to the destiny of our fellow creatures."

And Holmes was right. Living in a country where freedom of speech and conscience are the very fundamentals of our constitution, what subject is there that cannot be freely investigated and subjected to scientific criticism?

Says Holmes, "It is not science alone that Christian pessimism has to struggle with, but the instinct of childhood, the affections of maternity, the intuitions of the poet, the humanity of the philanthropist, in short, human nature and advanced civilization."

"We cannot have self-government and humane laws without a complete reaction in our religious views." "We frequently see persons in insane asylums and hospitals, sent there in consequence of what are called religious mental disturbances. I confess I think better of them than of many, who hold the same notions and keep their wits and appear to enjoy life very well. Any decent person ought to go mad, if he really holds such opinions."

Again Dr. Holmes says: "A French physiologist once confined tadpoles under water in the dark. Removed from the stimulus of light they could develop neither legs nor arms. They swelled and grew into gigantic tadpoles. I have seen hundreds of colossal human tadpoles and a considerable number of the Holy Father's one hundred and thirty-nine millions of followers are overgrown larvae, sculling about in the dark by the aid of mere caudal appendages."

Such is the comment of Dr. Holmes on the Christian religion.

That he was an agnostic and a freethinker no one can doubt after reading his works; and as a matter of fact, can the intelligent physician, who has access to all modern literature, backed by his own science, be anything else?

And what an opportunity the physician has in his profession, to help drive out fear and superstition from those with whom he comes in contact and to assure them of the natural order of the universe?

In poetry Dr. Holmes excelled as in everything else and it is in his humorous verses that he pleases most.

Who has not read "Old Ironsides" without a renewed patriotic feeling and who has not smiled at the "Deacon" and his "One Hoss Shay?"

No medical man should fail to read "The Stethoscope Song" and he who can read "The September Gale" without cracking a smile for the rest of the day is indeed devoid of humor.

In rhetoric he was the master of metaphor and in "The Chambered Nautilus" he is in close rivalry with Robert Burns in the use of his similitudes.

In "Elsie Venner," "The Autocrat of the Breakfast-Table," and in his poems the memory of Dr. Holmes will never die.

If this brief paper may stimulate someone to learn more of this great man, physician and author, and to encourage the realization of the value of biography, its object will have been accomplished.

References: "Life of O. W. Holmes," by W. S. Kennedy; Encyclopedia Brittanica; "Autocrat of the Breakfast-Table," O. W. Holmes; "A Study of O. W. Holmes," by David Eccles.

31 Princeton Street.

Melanosarcoma of the Buccal Mucosa.

A case reported by E. Hofmann *Muench. Med. Woch.*, 1916, lxiii, 322, was in a man of 58 who in January, 1911, presented himself with a tumor which had first appeared about a year previous. This was situated in the external part of the ascending branch of the maxillary, about the size of a cherry, hard, dark-colored and with linear radiating furrows. The tumor with the proximate tissue was extirpated under local anæsthesia by the galvanocautery. In the following week the dark lines which traversed the velum were cauterized and an energetic salvarsan treatment instituted. Two months after the first operation a dark discolored spot showed in one of the extremes of the cicatrix, which had resulted after the operation.

The tissue in which this spot was situated was circumscribed by the themocautery and removed, radiotherapy treatment being instituted later. Histologic examination showed that this tissue as well as the original tumor which was removed was typical melanosarcoma.

The patient was lost sight of until 1915. For about a year the patient lost weight rapidly, losing 4.5 kilos in weight in little more than a month. Blackish streaks were ejected in the expectoration and microscopic examination of these showed melanic nuclei identical with the primary tumor.

In the lobule of the left lung there were catarrhal manifestations which suggested the existence of metastases. The patient was again put under salvarsan treatment.—(*Surg. Gyn. & Ob.*, Nov. 1916.)

Five Minute Clinical Talks

HOW TO TREAT PNEUMONIA.

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Brooklyn, New York.

In the absence of a reliable and effective specific treatment for lobar pneumonia, or of a standard treatment which is universally recognized and accepted, the therapeutic field in this disease may be considered as open. The following plan of treatment is one which I have described in five publications during the past three years, and have used in nearly two hundred consecutive hospital cases, besides other cases, during the past four years. The results obtained with it were so much better than those obtained previously with other methods of treating this disease, that I recommend it with considerable confidence. The distinctive features of the plan are as follows:

1. Give a particular, specified diet, which supplies daily about forty grams of protein, fuel of the value of about 1300 calories, adequate rations of salts, (particularly salts of calcium, which are regularly deficient in pneumonia) vitamines, and water; and which is fluid, easy of digestion, and non-putrefactive, (i. e., does not wash down into the alimentary tract with a favorable culture medium the pneumococci in the mouth and throat, or favor the growth of the saprophytic bacteria in the alimentary canal.) Such a diet can be secured by the following dietetic prescription: Give seven and a half ounces of milk which has been peptonized or lactacidized, or diluted one-third with cereal gruel or water, seven times a day; seven and one-half ounces of orangeade made with the strained juice of one orange, one ounce of milk, sugar and water, (or a similar fruit juice preparation,) three times a day; thirty grains of sodium chloride and forty grains of calcium chloride in divided doses during the day, in addition to the salts in the other food; and water sufficient to make the total daily fluid intake about one hundred ounces. Less food than this may be given, but not more.

2. Do not move the bowels artifically except under extraordinary circumstances. If you give the patient the diet just described, you can, as a rule, safely and advantageously let his bowels alone for as long as the active disease is likely to last. This diet is practically free from indigestible residue, and does not favor the multiplication of the putrefactive bacteria and the pneumococci in the alimentary tract. If the bowels move naturally, it is well; and if they do not move, it is usually quite as well. The rationale of this extreme conservatism in the use of cathartics in pneumonia is suggested by the following facts. Artificial evacuants increase the fluidity of the bowel contents, and consequently facilitate microbic activity therein; they weaken more or less the protective power of the intestinal mucosa; they predispose to abdominal flatulence; and they reflexly disturb the heart, which is often in an unstable condition in this disease. There are some conditions, however in which it is permissable and desirable to use artificial evacuants. In the beginning of the disease, if the bowels have not moved recently, a simple enema may be given, or a dose of castor oil, (the latter regularly in the case of young children); but in the later stages, or at any time if the heart shows signs of strain, evacuants should be carefully avoided. Also, if flatulent distention of the intestines should develop, which rarely happens in patients treated according to this plan, it may be of advantage to give a simple or a fel bovis enema, if severe restriction of the diet or stoppage of all food except water does not cause it to disappear. Colonic irrigation may be used in severe cases of intestinal flatulence, but with great caution.

3. Stimulate the heart, when necessary, according to the following plan, which is flexible in prescribed ways to meet special indications. Be careful not to stimulate the heart unnecessarily or excessively, but on the other hand, do not delay too long before beginning the stimulation. Give first, usually, strychnine sulphate, in doses of one-sixtieth of a grain every four hours. If more stimulation is needed, add tincture of strophanthus, in doses of one and a half to three minims, every four hours. If still more stimulation is needed, increase dose of strychnine to one-thirtieth of a grain, and add caffeine citrate, in two grain doses, every four hours; or give in place of the strophanthus, strophanthin, hypodermatically, in doses of one-thousandth to one five-hundredth of a grain, every four hours. The strophanthin also may be given in place of the tincture of strophanthus if there is a gastro-intestinal idiosyncrasy in regard to the latter. It is not often that more than the amount of stimulation supplied by the above plan will be required; if it should be, the case is usually hopeless. Alcohol, in small doses, may be given to the aged and to those addicted to its use. Heart stimulants should almost never be given to infants and young children.

4. Treat symptoms definitely, but conservatively, and recognize the fact that all symptoms do not call for treatment, especially those which are not so much manifestations of disease as evidences of nature's reparative activity; among which, perhaps, fever may be classed. Pain, cough, restlessness and insomnia, occurring in the early stages of the disease, and depriving the patient of much needed sleep, may be relieved by the application of hot poultices to the chest, and, perhaps, by the administration of morphine or codine in small doses; but opiates should never be given near the expected time of the crisis, nor when the respiration is embarrassed. Diarrhea may be treated by restriction of the diet to barley water, rice water, or water alone. Vomiting may be treated by stopping all food for a time, and, perhaps, if it occurs in an early stage of the disease, by a small dose of morphine, hypodermatically. Tympanities, which is of rare occurrence in patients treated by this method, calls for exclusion of milk preparations from the diet, or more extensive restriction of the diet, and, if severe, introduction of the rectal tube and the use of enemas, as previously described. Delirium calls for extreme watchfulness and often physical restraint.

5. Observe the following negative directions regarding certain procedures which are in common use and which even have the sanction of good authority.

Do not give calomel and magnesium sulphate, or any other cathartic as a routine procedure. (Magnesium sulphate, in addition to possessing the other disadvantages of a cathartic in this disease, is a pronounced cardiac depressant and kidney irritant; and calomel has the added disadvantage of being an irritant to the intestinal mucosa and to the hepatic tissues).

Do not give antipyretics; respect what may be a constructive or defensive process on the part of nature. But in extreme cases with long continued hyperpyrexia, antipyretic hydrotherapy may sometimes be employed.

Do not give drugs for a direct diuretic action, nor any expectorant drugs.

Do not give drugs for the purpose of producing in-

testinal antisepsis; rely on diet for modifying the intestinal flora.

Do not give any of the drugs which have been recommended for an alleged specific or quasi-specific effect, such as creosote carbonate, salicylic acid, quinine, urotropin, or camphor.

RESECTION OF THE NASAL SEPTUM—A CONSERVATIVE OPERATION.

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ASSISTANT SURGEON IN OTOLOGY, NEW YORK EYE AND EAR INFIRMARY: CLINICAL INSTRUCTOR IN OTO-LARYNGOLOGY, COLLEGE OF PHYSICIANS AND SURGEONS.

New York.

The surgery of the nasal septum has advanced to such a degree that it may be ranked as the best conservative operative procedure we know of to-day. When one recalls the butchery of the septum of fifteen to twenty years ago, when the crude Asche operation was in vogue, entailing as it did the wearing of a nasal splint for from three to six weeks, he can well realize the great strides the rhinological surgeon has made within recent years.

As short a time as a decade ago, the submucous resection of the nasal septum, was looked upon as a difficult operation. The surgeon did not feel content to limit his surgical efforts to the removal of obstructing parts but, like the artist who spoils his painting by over-touching, he worked in the deep recesses of the nose, until he frequently removed more bone than was necessary—the result being an atrophic condition of the mucosa. Oftentimes large perforations were made which became a constant source of irritation.

To-day the watchword of the rhinological surgeon is conservatism—his motto is "Give the patient a good breathing nose. Don't attempt to make the nose symmetrically perfect."

One may ask why I consider the submucous resection a conservative operation. Primarily because no mucous membrane is destroyed if the operation is done properly; secondarily, it has turned the attention of the surgeon away from the crude, inefficient and often harmful operations on the turbinate bones.

One must understand that the interior of the nose is lined with ciliated epithlium which when once destroyed can never be replaced. Although in special instances, hypertrophic tissue over the turbinates must be removed, in the majority of cases this hypertrophic or more properly turgescent tissue can be made to subside considerably by straightening out a bend in the septum. One must remember that such thickening is frequently due to irritation caused by the apposition of mucous surfaces. For example, a bend in the septum may impinge upon an enlarged inferior or middle turbinate. Not only is obstruction to breathing caused by this bend but the normal secretions of the accessory sinuses are dammed back, resulting in further irritation.

I have stated that the primary reason why the submucous resection is a conservative operation is because no mucous membrane is destroyed. When the operation is properly performed a small linear incision is made along the muco-cutaneous junction and the entire operation is performed through this opening. The mucosa at this part is not very important and, when destroyed, such destruction is of little consequence. However, one must be careful not to make perforations in the mucosa further back for such a mishap might result in a permanent opening.

If the submucous resection of the septum is performed in a hospital, in the recumbent position on the operating table, if a hypodermatic injection of morphin and atrophin is given an hour before operation (or better still an H. M. C. tablet two hours before); if the mucosa has been well infiltrated with cocain or adrenalin so that there is no pain or bleeding, one may frequently remove all the necessary bone in five to ten minutes with practically no post-operative shock.

A conservative operation? Yes. And the results? In many instances marvellous. I have seen scrawny, under-nourished individuals increase in weight within a few weeks. Coughs have been stopped, throat irritations cured, headaches relieved, deafness and tinnitus diminished, intestinal complants vanish—due to the removal of a nasal obstruction by means of this simple conservative operation.

11 West 81st Street.

DACRYOCYSTORHINOSTOMY.

JOHN J. KYLE, M. D.,

Los Angeles, Calif.

There is something appalling in the size of the title of this five-minute paper, and one with stuttering proclivities may succumb in an attempt to pronounce the word, but when reduced to a simple proposition it refers to and describes the intranasal operation for the cure of dacryocystitis. This operation prominently emphasized by West, Halle, Green and others, has not had the recognition it rightly deserves.

Dacryocystitis is an acute or chronic purulent inflammation of the lacrymal sac, and sometimes of the entire lacrymal duct. We have more to do with the chronic form than the acute.

Patients suffering from chronic dacryocystitis complain of a constant accumulation of pus and overflowing of tears, blurring of vision, sometimes swelling of the tear sac, and now and then a rupture of the sac, and formation of an external fistula. Remotely the sac may from distension extend itself into the orbital cavity, and may be mistaken for a benign growth or orbital abscess. The cure of a chronic dacryocystitis has heretofore been about as bad as the disease. The use of a lacrymal style or canula is always a source of annoyance, and very unsatisfactory at best.

Slitting the canaliculus and probing of the duct has from time far back been the plan of operation. Where the lacrymal duct is also involved the operation will not cure, but has a tendency to prolong the disease. Following the unsatisfactory results from the slitting of the canaliculus, extirpation of the lacrymal sac was recommended. This operation resulted in an external scar and was especially unattractive in women, and, besides, the eye would continue to tear. To overcome this a resection of the tear gland was taken as the proper procedure, but this gave a dry eye and was a constant source of trouble, besides a predisposition to trophic changes in the cornea occurred. Toti (*La Clinica Moderna,* 1904) advocated making an opening externally over the lacrymal sac and removing the bone and exposing the mucous membrane of the middle meatus. If any of my readers will refer to the *American Journal of Ophthalmology,* December, 1897, they will find described by myself practically Toti's operation. Professor Hirshburg of Berlin, in commenting upon my operation, said in his book on diseases of the eye, that the operation as described by me was known for more than thirteen hundred years, and was a rediscovery.

Before proceeding to the intranasal operation, some

operators recommend slitting of the canaliculus and passage of a canula. With this held in position the sac can be easily reflected into the nasal cavity after the intranasal wall covering the sac is removed.

Dr. James B. Horgan recommends this procedure, with the exception that the puncta is dilated sufficiently to admit the sound, and by so doing the sac is bulged into the nasal cavity and more easily incised than by the West forceps.

I have only three cases to my credit. In none of these did I use a sound to force the sac into the nose, but the idea is a good one. In my three cases the results, after a year's time, have been satisfactory. Two of them were relieved of all trouble, and the third complains at times of the formation of scabs in the nose, which produce a redness of the eye at times. This is due, I think, to the fact that insufficient bone was removed covering the sac, and, in consequence, the discharge is too slow into the nose and thus dry scabs are formed by too rapid evaporation of moisture. The operation may be in some cases very tedious, and if the septum is bowed toward the diseased side or in close opposition to the external wall, a submucous operation must precede the duct operation.

The lacrymal sac lies in the lacrymal fossa, which is formed anteriorally by the superior maxilla, and posteriorally by the lacrymal bone. The torus lacrymalis lies in front of the anterior tip of the middle turbinate, and can be seen as a distinct ridge. It is at this point we direct our operation, keeping in mind the danger of entering the infundibular cells, naso-frontal duct, or even the brain cavity. A 20 per cent. cocain and adrenalin solution will practically produce complete anesthesia at the site of operation.

After anesthesia the nasal cavity is carefully cleansed with some mild antiseptic solution, and with a long, slender knife a quadrilateral flap of mucous membrane is formed anteriorally to give approach to the fossa, and turned downward. This flap may be returned in position after the bone is removed, but this is rather unsatisfactory, and is usually destroyed during the operation. With a long hollow chisel devised by West and driven by a mallet, the anterior wall of the fossa is broken away. Now by pressing on the canula in the lacrymal duct externally, the sac can be seen bulging into the nasal cavity, or without this the sac will be noticed as a whitish mass, and by pressing with the finger externally over the sac, bulging of the sac can be seen. According to West the sac is now seized with special tooth forceps, drawn to the septal side and incised with a knife. Pus of the sac will now be seen readily pouring into the nasal cavity, if the sac has not been previously irrigated through the puncta. It is important that the sac be well incised, and the method of Horgan as described above may be more satisfactory than the tooth forceps of West for this procedure. After the sac has been emptied by pressure, it is wise to back the attic of the nose with iodoform gauze well moistened with vaseline. This should be removed the day following. The nose should be kept cleansed after this, and the patient instructed to make gentle pressure over the sac at least twice daily, so that any obstruction in the nose may be prevented, and thus complete drainage established.

From my limited experience I can recommend this operation as an advantage over any other devised up to date.

As chronic appendicitis is often associated with Lane's kink the differentiation is frequently impossible. *X*-ray examination is helpful.

THE SIGNIFICANCE OF URINARY SHREDS.

H. Sheridan Baketel, A. M., M. D.,

ADJUNCT GENITO-URINARY SURGEON TO THE HOUSE OF RELIEF OF THE NEW YORK HOSPITAL AND POLHEMUS MEMORIAL CLINIC,

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At certain times urinary shreds are indicative of a pathological condition requiring treatment. At other times they have no particular significance. Differentiation is the important factor.

With the subsidence of the inflammation of an acute urethritis, small scabs form upon the injured surface and are eventually washed out by the urinary flow. A microscopic examination reveals their composition to be epithelial cells, bacteria, leucocytes and pus cells, the latter being indicative of the presence of the gonococcus in the acute stage. The whole is held together by mucus or fibrin. The scabs in the urethra are rolled up by the force of the stream and when suspended in the urine look like threads or shreds.

To successfully treat the disease, it is important that the physician differentiate between the various shreds. The younger Keyes has found five varieties, small granular flakes, composed of pavement, epithelium and pus cells, coming from the anterior urethra and slowly settling to the bottom of the examining glass; very white threads, composed of many pus cells from the anterior urethra, settling to the bottom immediately; the tadpole shred, usually from the posterior urethra, settling at once and indicating the existence of an ulcerated spot or follicle; angular shreds of different sizes and shapes, settling quickly and demonstrating a chronic inflammation, such as stricture; and fleecy, cottony shreds, often appearing alone in a clear urine and coming from the prostate. It may float for a long time and then rise to the top and will show under the microscope leucocytes, squamous epithelia, round cells, occasionally some bacteria, but never gonococci, and is held together by mucus.

We can add the shreds resembling commas, which are plugs from prostatic tubules, if from the posterior and from the ducts of Littre's glands, if from the anterior urethra, and the long, spiral or coiled thread which sometimes comes from a small inflamed area, usually in the anterior urethra.

Very rarely after dilation with a posterior dilator and subsequent treatment with silver nitrate solution, one may find the cast of the seminal vesicle or prostatic utricle.

We cannot recommend the usual two glass test for the purpose of accurately determining the origin of the various shreds. It is better to wash out the anterior urethra with a weak solution of boracic acid and then examine the shreds from that portion of the canal. The physician is then enabled to distinguish the various shreds from the posterior urethra without being compelled to consider the anterior.

Should it be necessary to go further for diagnostic purposes, one can do what may be termed a modification of Wolbarst's 5 glass test. With the bladder full

1. Wash out the anterior urethra as described.
2. Introduce a sterile catheter into the bladder and withdraw three ounces of urine, thus giving an opportunity to study any pus or shreds that may be in the bladder.
3. Pass 2 ounces of urine into a glass thus washing out the prostatic urethra.
4. Massage the prostate vigorously and instruct the patient to empty the bladder. This will reveal any prostatic plugs or shreds.

Another means of distinguishing shreds is to flush out the anterior urethra with a cold solution of methylene blue. Thus all shreds in the anterior canal will be blue, while the posterior filaments will be of natural color.

When are shreds indicative of pathological conditions? Until the time when every known test has shown that the patient is free from gonococci. This includes the microscopical examination of the shreds and any urethral or prostatic exudate, the complement fixation test and the absence of disease of the prostate, seminal vesicles, kidneys or bladder.

Neurasthenics will worry the physician as long as they find shreds in their urine, but if all other signs are absent, they can abide themselves in peace. We have seen shreds in the urine of trustworthy men who claim they have never had an urethritis and a patient of 67, now under treatment for another condition, has had shreds in his morning urine for 42 years, without a semblance of anything which would lead one to believe they had caused him any trouble. He did not infect his wife and has no other indications of that lapse from virtue which occurred over four decades ago.

54 Sidney Place.

The American Association of Clinical Research

JAMES KRAUSS, M. D., Permanent Secretary and Editor.

CANCER—A NEW METHOD OF TREATMENT.*

M. W. McDUFFIE, M. D.,
New York.

The cancer problem, and by this term we mean both sarcoma and carcinoma, is a subject well worthy of our best efforts. The family physician, no doubt has the greatest responsibility, as to him and his judgment, first comes the sufferer from this disease. On the other hand, the surgeon and gynaecologist have almost an equal responsibility in that, to them, the greater number eventually come—for some form of surgical procedure. In our study of treatments for this disease during the past seven years, two have impressed us as dependable for definite results—those were surgery and radium. On the other hand, how limited they are—in fact, only local in their effect, for cancer is a constitutional disease as well as local. In this treatment which we are reporting today, the effects are both local and constitutional. It is trypsin by intravenous injections. A new method of treatment for this disease. There is, as we all know, an immense literature upon trypsin from every possible point of view—the role of the enzyme in digestion, intracellular, its relation to carcinoma, etc. The question with most of us is, not the theory of a treatment—but whether we will get satisfactory results for our patients.

Fairchild's was the first trypsin ever offered to the profession. When trypsin was first prepared for injections, certain experiments were carried out, the injection into guinea pigs of pancreatic sterile. This was performed because of the fact that trypsin obtained from the pancreas must necessarily have considerable variety of protein conventionally known as peptons. Guinea pigs were injected with sterile pancreas pepton solution in quantities perfectly enormous in proportion to body weight. No ill results whatever, maintenance of health and usual gain in weight compared with control.

Subsequently, research was done in the intravenous injections of trypsin into animals: the conclusions were these—that trypsin injections have no toxicity. But, there were profound physiological reactions—rise in temperature, increased heart action, etc. We are the first so far as we know, to use trypsin in the human intravenously. Trypsin has been used intravenously on cats, dogs, rabbits and guinea pigs without danger. In testing the toxicity of trypsin over 50 injections made into the veins of cats, dogs, rabbits—no toxicity was found. The most notable symptom was the rapid and considerable fall in blood pressure—on the human, various symptoms develop—one c.c. has been found to be the best average dose. This should be repeated at various intervals, according to the patient, given intravenously. We have used same daily or every fourth day, according to reactions.

The reactions are as follows—marked vasomotor disturbances, flushing even edema of face and eyes, pain at location of the growth, diuresis, at times diaphoresis, diarrhea and vomiting. Chills with marked increase in temperature and pulse may develop almost immediately, but usually occurs about one hour after the injection. Twelve hours after the injection, all signs of reaction disappear. At times, pain in parts affected is aggravated at the time of injection with marked lessening of pain after a few injections. Later softening of growth or actual absorption.

The following case, though treated intramuscularly, was the first of our cases to convince us of the possibilities of the trypsin treatment.

CASE 1. Mrs. Eliza Roberts, age 48, married, colored, entered Flower Hospital, Sept. 21, 1915, with recurrent carcinoma in cicatrix of previous removal of breast for carcinoma. Also netastasis in supra-glamcular region.

Family History.—Negative, except about 4 years before the time of a miscarriage, noticed small hard lump in right breast, largest near the nipple. Patient applied castor oil rubs to same for about one year, when she noticed a similar hard nodule in axilla—then went to St. Agnes Hospital, Raleigh, N. C., and breast and axillary glands removed by Dr. H. A. Royster. Pathological diagnosis—medulary carcinoma. Three years later recurrence with lymph oedema of right arm.

Physical Examination.—Head and neck negative, except large mass, hard, size of a man's fist, in right supraclavicular region.

Chest Examination.—Negative, except nodular masses along cicatrix from previous operation. Abdomen and lower extremities negative. Right upper extremity lymph oedema.

Diagnosis.—Recurrent carcinoma. Blood and urine examinations negative. Wassermann test negative.

Treatment.—Radium plus trypsin injections—principal treatment used was trypsin.

Results.—Marked improvement—glands and nodular masses softened—incised when fluctuating with a discharge of white lymph-like material (we had expected to find pus). Lymph oedema relieved by operation. On December 10th, when the patient was expecting to go home, cured, was seized with an apparent attack of apoplexy while straining at stool after a hearty breakfast and died.

Autopsy by Dr. McAllister, assisted by Dr. Flint, showed that there was absolutely no evidence left of carcinoma, either in cicatrix, supraclavicular region, lungs, heart, kidneys, intestines or g. n. organs. Skull cap not opened.

This case, through the carefully made diagnosis of Dr. H. A. Royster and his pathologist at the time of operation and through the careful autopsy of Dr. McAllister, is one of great value to science, for it has proven better than any photograph, that cancer is cur-

* Read at the Eighth Annual Meeting of the American Association of Clinical Research, on September 29, 1916.

able and trypsin is a method through which a cure is possible.

Such a convincing proof of the value of this line of treatment gave incentive for further investigation. Subcutaneous and intramuscular injections through pain and abscess formation were of great annoyance to the patients. Unless some other method was available, it seemed as though this valuable treatment would be discarded by many—therefore this simpler and quicker and more efficacious method—the intravenous.

Case 2.—Toney de Lucia, age 54, laborer, Italian, entered Metropolitan Hospital June 23, 1916. History incomplete as patient spoke very little English. Ill three months before entering the hospital.

Clinical diagnosis by Dr. Ralph Ward—sarcoma right lower jaw with metastasis to glands of neck. Growth and enlarged glands removed by Dr. Ward and bone curetted.

July 18th recurrence in glands of neck size of a small orange, also along angle of jaw. Wassermann negative.

Treatment.—Trypsin intravenously—marked reactions. Patient left the hospital in eight weeks clinically cured, growth absorbed, general health markedly improved.

These two cases representing the main two types of this disease, namely carcinoma and sarcoma offer proof of the value of trypsin treatment and demonstrate the fact that a cure for cancer is possible.

The results are such as I bring them to the attention of this Society for Clinical Research with the definite desire of interesting your attention and in the hope that the experience of these few cases may justify the wide and conclusive working of this treatment which can best be obtained in the hands of a large number of independent clinical workers in the field presenting so many and serious problems.

Even those who are not especially interested in physiological chemistry and biology must be in some degree aware of the great interest which trypsin, the proteolytic energy of the pancreas gland, has at the present time—when our attention is drawn to the antitrypsin property of serum, to the antitrypsin index in the diagnosis of disease based upon the now well-known fact that in certain diseases the antitrypsin index is low; in other words, what is to be interpreted as the resistance is weakened.

And when we see also the profound and peculiar energy of trypsin in the splitting up of proteins in the production of the ultimate products of cleavage, an action in which, for instance, the gastric digestion is comparatively deficient, whilst trypsin, supplementing gastric digestion, attacks with the characteristic energy the proteins which have undergone, but a preliminary or partial digestion by the peptic enzymes.

It is probably the impression which for a long time prevailed as to the toxicity of trypsin which has prevented the actual intravenous injections of trypsin. Indeed, the merely subcutaneous injection of trypsin was regarded as a hazardous expedient and naturally has required and does require, to be followed with the most assiduous technic to avoid septic contaminations; and to introduce quantities to be indicated and guided in each case by the physiological reactions. But there is to my mind good reason for the belief that some bad effects of subcutaneous injections were to be attributed to the character of the injection, the actual material of the injection employed or to the technic.

Bainbridge, in his book, "The Cancer Problem," expressed the opinion that bad results were more likely to be attributed to this cause than to the trypsin *per se*. Beard dwells on this point and speaks with perhaps pardonable bitterness of the character of the trypsin injections which were available for clinical use, and the delusive and prejudicial results.

On the other hand, there is a general concensus of opinion observed in the literature of the clinical administration of trypsin hypodermically, subcutaneously and intra-muscularly, of certain "tonic" effects, increasing the well-being on the part of the patient and often of direct local effects upon the cancer.

Historically, briefly stated, the first use of any pancreas substance in the human subject (clinically) by subcutaneous injection was by H. Edwin Lewis, Burlington, Vt., (*American Medicine*, Vol. X, No. 7, pp 282-284, 1905) and his results were such as to cause him to express optimistic opinions as to its value.

Beard's suggestion of trypsin and the pancreatic enzymes, trypsin and amylopsin, in conjunction, in the treatment of carcinoma is well known and based upon experiments in the treatment of a mouse infected with carcinoma. The experiments made because of Beard's own view as to the occurrence of cancer—the view gradually developed and elaborated by him in his profound researches and original work in the field of embryology.

Beard's continued and staunch advocacy of this treatment is well known and equally also the fact that this treatment has, in the hands of clinicians, not been considered a cure for cancer.

Bainbridge's conclusions to this effect in his work already referred to probably represent the general feeling of the medical profession to-day. Yet there have been numbers of cases benefited by this treatment and some which were considered genuine carcinoma as actually cured. Here it is unnecessary to more than mention the well known conflict of opinion, the discussion and the interest which Beard's theory and treatment aroused.

Next we have Baetzner's resort to trypsin injections for the first time, we believe, in the treatment of surgical tuberculosis. His paper, "The Trypsin Treatment of Surgical Tuberculosis" (*The Practitioner*, January, 1913) is worthy of attention, not only because of the actual results obtained, with the description of cases, etc., but for its informing discussion and scientific consideration of the role of trypsin as a direct solvent of tuberculous tissue and pus, and as therapeutically utilized. To quote from this paper:

"After a few more injections formed elements began to appear, and then the secretion was absorbed remarkably quickly; healthy granulations sprang up, later the blood vessels surrounding the former abscess began to get smaller and with their obliteration the granulations were turned into connective tissue and cicatrization was complete."

Beard in his last book, "The Enzyme Treatment of Cancer" and Baetzner in his paper called special attention to the character of the trypsin injecting employed by them and emphasized the importance of a sterile solution of a definite trypsin power. And I cannot but urge that those interested in this subject will take the pains to see that the preparation employed meets these desiderata so essential in establishing any therapeutic action, in getting any reliable clinical data, negative or otherwise; and which should be the concern of the physician more particularly in dealing with an organic product of the nature of this so potent enzyme, trypsin.

Trypsin, like all enzymes, when in aqueous solution, is extremely labile, and more particularly so, when separated from its natural association with the other constituents of the gland and purified. Therefore, anyone who takes trypsin so called, or actual trypsin and then attempts to form an aqueous solution at his convenience will deal with a preparation which is constantly losing energy or which if not placed in some chemical antiseptic will have undergone putrefaction; or the preservation may be present in such quantity as to either inhibit or actually destroy the enzyme.

Trypsin as it exists in the pancreas, is in association with other enzymes, one of which, amylopsin, has been considered by Beard to bear an important relation to trypsin, not only physiologically, but therapeutically—in his treatment. This may be at the moment dismissed, since I have not studied this subject, have not employed amylopsin in connection with trypsin intravenously.

Trypsin, in view of its place in the scheme of digestive action, coming into contact as it does, with the mixed food, preliminarily subjected to salviary and gastric action is found active upon all its natural substrates, in neutral or feebly acid or feebly alkaline media.

In the earlier and most of the clinical investigations recorded, the trypsin injections then ventured upon, or indeed offered, ranged from 1% to 3% actual trypsin. And I could not caution too much against the employment of merely "pancreatin", because it is not only variable, but is of indefinite and hazardous nature for use in any extemporaneous solution.

I have employed in the following cases Injectio Trypsini, Fairchild, which is of a standardized activity as follows:—One thousand (1000) tryptic units according to Roberts' method. This standard, briefly, is one suggested by Sir William Roberts for the valuation of tryptic energy, and is based upon this reaction, viz:—that casein as naturally occurring in milk when subjected to tryptic energy undergoes a preliminary conversion into a form described by Roberts as meta-casein, in which state it becomes coagulable by heat.

The quantities of the pancreatic extract or trypsin employed were by Roberts' method brought to such a relation as to obtain this reaction, the "onset" of the point of this meta-casein reaction in five minutes. This in the hands of competent chemists is said to be a rapid and convenient and admirable method of standardization; but it has to be very exactly adjusted. Otherwise if the enzyme were too active, present in too large a proportion, the casein would be converted beyond the meta-casein point so that the fluid would not give the characteristic curd; or if too weakened be so slow as to be tedious and difficult of sharp determination.

Injectio Trypsini, standardized by the Fuld-Gross method is based on the parts of purified casein, dissolved in a definite amount of caustic soda and then digested with the injection for one hour at 40 C. until so converted into peptoses as to produce no precipitate with acetic acid; one part of the injection will hydrolyze 20 parts of pure casein—is a 60% glycerin solution with ingredients of normal salt solution, so that when diluted with two parts of sterile water, the injection is isotonic with the serum (has a normal salt solution strength).

Glycerin constitutes an admirable medium, since it not only takes up the enzyme, but, in sufficient quantity, holds it in the most suitable practical form for injection. In the menstruum the 60% glycerin aqueous solution is first thoroughly sterilized and then after taking up the enzyme, the solution is sterilized upon a Berkefeld filter.

It is this product which has been employed in these particular clinical researches in tuberculosis, cancer and surgical tuberculosis already mentioned—by Lewis, Beard, Baetzner and Bainbridge, and various others and now by myself.

In making this report, I feel that I must state the impression that I have received, and which has been mentioned by other investigators of trypsin clinically, that the medical profession are indebted to Fairchild for his work in the practical isolation of trypsin, the study of the applied chemistry of the enzymes which have made possible the clinical studies of trypsin upon a scientific basis.

The Diagnostic Laboratory

Conducted by CHESTER T. STONE, M. D.,
Brooklyn, N. Y.

Diagnosis of Syphilis.

John A. Fordyce says that in the light of more recent investigations an analysis of the spinal fluid is not complete unless the gold sol test is performed in addition to the Wassermann reaction and cytological and chemical examination. The theory of this reaction is based upon the observation made by Zsigmondy in his original work on metallic colloidal solutions in 1901, that solutions of electrolytes precipitate colloidal gold; that in the absence of an electrolyte, proteins will also cause such a precipitation, while in the presence of an electrolyte they inhibit precipitation. These principles were applied by Lange in 1912 to the examination of the spinal fluid. He found that by a modification of the Zsigmondy technic, normal and pathological fluids could be differentiated from each other as well as syphilitic from other affections of the central nervous system. While the test has been employed by a number of workers during the past few years in the diagnosis of syphilis, it has not had the general application it deserves owing to the difficulty of making the solution. This phase happily is now in large measure overcome by the admirable work of Dr. Miller and his associates at Johns Hopkins. Through their investigations every detail in connection with the technic of its preparation has been so carefully developed that the standardization of the reagent is now possible, and consequently more uniform results in the reaction.

Just how the reaction occurs and the nature of the protein or proteins involved is not known. Views advanced are that it is due to the presence of abnormal albumin or possibly the presence of an excessive amount of the normal. It was originally found that the colloidal gold was a qualitative determination which, according to dilution, gave different reactions. Lange, therefore, sought the explanation in a different qualitative mixture of proteins while Zalozieki interpreted it as an immunity reaction, and Jaeger and Goldstein as a physical phenomenon of an electrical nature. Miller, Brush, Hammers, and Felton have shown that the substance is dialyzable. The amount of albumin normally present in the spinal fluid gives no reaction and a change in reaction is therefore indicative of some abnormality as to quantity or quality.

The test itself, very easily and quickly made, consists of a series of color changes which occur so characteristically and constantly that they may be said to be specific. It is performed with ten dilutions of spinal fluid in geometrical progression from 1 to 10 to 1 to 5120. The color change depends on the amount of colloidal gold precipitated and varies from the negative salmon red through red blue, lilac or blue, blue gray or gray, and colorless. These changes may be plotted in curves or are arbitrarily expressed from zero to five. A negative colloidal gold would show no change and would therefore be expressed as 0000000000. In tabes and cerebrospinal syphilis the reaction occurs in the lower dilutions with the intensity of the change in the third and fourth or fourth and fifth tubes. The term "luetic zone" or "luetic curve" is used to describe this reaction. The reading would be as follows: 1133200000 or 1223320000. In meningitis of non-syphilitic origin the maximum change occurs beyond the syphilitic zone —that is, in the higher dilutions—while in paresis precipitation of the colloidal gold occurs regularly in the

first four to eight tubes with decolorization or a turbidity, and the reading represented as 5555431000 or as many fives as there are decolorized tubes. To this zonal change Miller and Levy applied the term "paretic curve." A properly standardized—that is, a neutral solution of colloidal gold—shows either no change at all with a normal spinal fluid or produces a slight variation with a bluish nuance in the first four or five tubes which is negligible. Some cases may even give a change to a frank red blue in the first four tubes, so that the reading would be 1111000000, but with all the other laboratory findings negative it has been shown this had no diagnostic import.

It may be said that, as a rule, there is a parallelism between the other positive findings in the fluid and a positive gold reaction. The significance of any one of the individual abnormalities must be appreciated before a proper interpretation can be placed upon the laboratory findings. We know that a lymphocytosis alone is not pathognomonic of syphilis as a mild grade is met with in other affections of the central nervous system and that the cell count cannot be relied upon to differentiate between tabes, cerebrospinal syphilis, and general paresis, as an equally high pleocytosis may be met with in any of these conditions. So too the presence of globulin alone indicates organic disease of the brain or cord, but does not separate syphilitic from non-syphilitic disease. More positive information is derived from the complement-fixation test, as a positive Wassermann occurs only in lues. However, this test by itself does not supply a differential diagnosis as fixation to 0.2 c.c. or lower is met with not only in paresis but in some cases of progressive tabes and cerebrospinal syphilis. On the other hand, with a distinctly syphilitic process, as in cerebral endarteritis, abortive or stationary forms of tabes, and some types of cerebrospinal syphilis, the Wassermann may be completely negative. In the last-named cases a supplementary gold test is of value in demonstrating the luetic nature of the condition. Its greatest value and by far most prominent rôle, however, is in distinguishing between paresis and the conditions which simulate it as well as its prognostic significance in tabetics who show no mental impairment but give a paretic curve. Since the application of the gold sol test a number of patients in whom no cerebral involvement was suspected have given the curve characteristic of paresis.—(*Am. Jour. Med. Sci.*, Oct., 1916.)

Examination of Semen with Special Reference to Its Gynecological Aspects.

Cary has made a very elaborate and careful critical study of the semen in sterility in the light of the work that has been done by others. He emphasized the great percentage of barren marriages in which the cause of sterility is in the male. To operate upon a patient or to subject her to exhaustive gynecologic treatment without investigating the reproductive powers of the husband is neither fair nor scientific. Prognosis must depend largely on the relative potency or impotency of the male whether the deficiency lie in the spermatogenesis or in the act of copulation. The semen is collected in a suitable receptacle preferably by placing the condom in a small wide-mouthed jar tightly corked and in turn suspended in a larger jar of warm water or in a thermophor. It is to be transported as soon as possible to the gynecologist or laboratory worker who should be prepared to make immediate microscopic examination. Another method, when feasible, is to place the condom in the vagina and prevent its escape by a tampon. It is also of value if the semen is examined by removing it from the vagina, after normal coitus. The high power lens is necessary to examine the specimen.

The determination of efficiency of her spermatozoa depends on the degree of oligospermia, the percentage of imperfect spermatozoa—whether immature or deformed; the percentage of the cells that are motile, whether sluggish or lively; and finally, the length of time activity persists. Complete study must include, before giving an unfavorable prognosis, an inquiry into the physiological affinity of the male and female secretions. Observations show a direct relation between the vigor of the individual and the potency of the semen.

Treatment is generally a genito-urinary problem. A large proportion of the cases is improved by measures which better the general health and sexual hygiene. Twenty-five per cent. efficiency warrants artificial impregnation; fifty per cent. efficiency justifies correction of a definite pathologic condition in the female.—William H. Cary, (*Am. Jour of Obst*, October, 1916).

A Modified Gram Stain for Diphtheria.

Albert Albrecht, Hospital Steward, U. S. N., says that in Stitt's "Practical Bacteriology," second edition, is the formula for "an easily made and quite permanent gentian violet stain":

Saturated alcoholic solution of gentian violet..25 c. c.
Five per cent. dilution of liquor formaldehydi..75 c. c.

This stain is unreliable as a gram stain, and was omitted from the third edition of the book.

During the past two years at the U. S. Naval Hospital, Great Lakes, Ill., over 3,000 cultures were made from the throats of recruits as they came to the station, to determine whether or not they were diphtheria carriers. Two and five-tenths per cent. were positive.

There were also two small epidemics of diphtheria. In all more than 4,000 cultures were made on Loeffler's serum and stained by the following method:

1. Stain with the foregoing gentian violet stain for two minutes.
2. Flood preparation with one-half strength gram's iodine solution for one and a half minutes.
3. Immerse slide seven or eight times in a jar of 95 per cent. alcohol.
4. Counter stain with saturated aqueous solution of Bismarck brown for four minutes.
5. Wash in water and examine.

The Klebs-Loeffler bacillus, when stained according to this method, appears as a brown rod, and the metachromatic granules are stained a deep violet. In other words, the bipolar granules alone remain gram positive. A single diphtheria bacillus can quickly be seen in a field with numerous other kinds of organisms.

The picture is that which we are supposed to get with Neisser's stain, but the organisms are stained more deeply, and the results are more constant.—(*Jour. A. M. A.*, Nov. 11, 1916).

Culture Media for Gonococcus.

Watabiki has used as a substitute for blood agar the following medium: 200 c. c. of cows milk are warmed to 60 C. and 5 per cent. ascitic agar is added drop by drop, the milk being shaken to cause precipitation of the casein. It is then filtered through filter paper. To the filtrate is added 10 per cent. caustic soda solution up to the point of slight alkalinity, and then two gms. of urea. The clear colorless fluid is then sterilized 60 C. for thirty minutes every day for three days. The sterilized fluid is then mixed with melted 0.3 per cent. nutrose agar at 45 C. in the proportion of one part of the fluid to two parts of the agar. Plate or slant forms

are prepared as needed. The medium must be incubated before use to make sure that no microorganisms have gained access during preparation. When fluid mediums are needed, equal parts of the fluid and of ordinary broth or peptone water are mixed. It is very necessary that the fluid not be heated above 70 C. as unsatisfactory results frequently follow the use of the fluid at a higher temperature. For the precipitation of the casein the amount of acid is not constant, the different samples of milk undoubtedly varying in quality.—(*Jour. A. M. A.*, Nov. 11, 1916).

62 Pierrepont Street.

The Physician's Library

Chemical Physiology. By W. D. Halliburton, M. D., Proferror of Physiology in Kings College, London. 9th edition; cloth; 324 pages. London and New York: Longmans, Green & Co., 1916.

Chemical physiology differs from physiological chemistry in that it treats solely the "chemical composition of the body and the part played by the various substances found therein carrying out the phenomena of life."

The author in this revision presents a rather obtruse subject in most attractive form. He has thoroughly revised former editions and added such important topics as the ninhydrin reaction for pregnancy, the urease method for estimating urea and the Lewis-Benedict method of determining sugar in the blood.

Blood Pressure From the Clinical Standpoint. By Francis Ashley Faught, M. D., formerly Director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College. Second edition, thoroughly revised; cloth; 478 pages; illustrated; $3.25 net. Philadelphia and London: W. B. Saunders Company, 1916.

Practice and not theory is the prime factor in this book, and the author has compiled a book that gives the reader a comprehensive idea of the fundamentals of the subject. Ultra blood pressure playing so important a role in medical practice, every physician should have a good working knowledge thereof. and Dr. Faught has made this possible.

Dyke's Automobile and Gasoline Engine Encyclopedia. Fifth edition. By A. L. Dyke, E. E. Published by the author in St. Louis, Mo.

As its name would signify, this book covers the entire field of automobile and gas engines. It is so conveniently arranged that the reader has no difficulty in locating any point necessary of elucidation.

This book is of great value to physicians who drive their own cars, as it answers as a guide to the intricacies of the motor.

A Manual of Chemistry. By W. Simon, Ph. D., M. D., late Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and Daniel Base, Ph. D., Professor of Chemistry in the Maryland College of Pharmacy. Eleventh edition, thoroughly revised; cloth; 648 pages, with 55 illustrations; $3.50 net. Philadelphia and New York: Lea & Febiger, 1916.

This edition incorporates the additions to and changes in the new U. S. Pharmocopœia. A number of changes have also been made involving re-arrangement, addition and deletion of material. The section dealing with non-metals has been entirely re-arranged and much new material has been added, and a chapter on quantitative determinations by volumetric methods has been included in the section devoted to analytical chemistry. The new edition is up-to-date in every particular and the work continues to be a manual par excellence for teachers, students and practitioners of medicine, dentistry and pharmacy.

Poems of Soul and Home. By Henry A. Van Dalsem. Published by his wife, Dr. Friede Van Dalsem, Huron, S. D.

Many bits of sentiment that touch the heart are contained in this book of verse. The author, a busy Dakota judge, found time to tune his lyre and his work shows a depth of soul which leaves an impress on the reader's mind.

Organic Chemistry. By Prof. E. V. McCollum of the University of Wisconsin. Cloth; 425 pages; $2.25 net. New York: The Macmillan Co, 1916.

This is a book stripped of unnecessary details and is especially intended as a foundation stone for physiological chemistry. To medical students it will serve its purpose well.

Progressive Medicine. Vol. XIX, No. 4, Dec. 1, 1916. Edited by Dr. Hobart A. Hare. Paper; $6 per year. Philadelphia and New York: Lea & Febiger, 1916.

No better review of medicine is published than this. Indeed, it seems indispensable to the physician who would keep abreast of the time.

The December issue contains these papers: "Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas and Peritoneum," by Edward H. Goodman; "Diseases of the Kidneys," by J. Harold Austin; "Genito-Urinary Diseases," by Charles W. Bonney; "Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations and Tumors," by Joseph C. Bloodgood, and "Practical Therapeutic Referendum," by H. R. M. Landis.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume V, Numbers II and IV. Octavo of 176 pages, 32 illustrations. Published bi-monthly. Price per year: Paper, $8.00; cloth, $12.00. Philadelphia and London: W. B. Saunders Company, 1916.

The last numbers of clinic of America's greatest surgical genius.

The Medical Clinics of Chicago. Volume II, Numbers I and II. Octavo, 196 pages, 22 illustrations. Price per year: Paper, $8.00; cloth, $12.00. Philadelphia and London: W. B. Saunders Company, 1916.

These clinics are full of interest and present material of value and interest.

Clinics of John B. Murphy, M. D., Vol V, No. 5, October, 1916. Edited by P. G. Skillern, Jr., M. D. Published bimonthly. $8.00 per year. Philadelphia and London: W. B. Saunders Co., 1916.

This appears under the editorship of a well known Philadelphia physician and is as useful as ever.

International Clinics. Edited by H. R. M. Landis, M. D., Vol. III, 26th series, 1916. Cloth, 309 pages. Philadelphia and London: J. B. Lippincott Co., 1916.

This old standby contains an unusually large number of practical helpful papers.

Public Health

Labor Unions and Health.

The circular printed and distributed by Typographical Union No. 6, of New York, to its members, in order to show along what lines it is attempted to secure the active co-operation of labor unions.

To the Members of Typographical Union No. 6:

In its efforts to make sanitary conditions in the composing rooms of Greater New York as near perfect as possible, the Committee on Health and Sanitation of Typographical Union No. 6 seeks your co-operation:

If healthful conditions do not prevail in your chapel—if the health of the workers in the office where you are employed is in any way endangered by unsanitary conditions or practices there—the Committee will appreciate any useful information you can furnish on the subject and will immediately act on any justifiable complaint. The Department of Health will investigate every complaint relating to unsanitary conditions in shops and workrooms reported by this Committee to them. This is one opportunity that the membership should not neglect.

The following questions will bring to mind some of the evils likely to be encountered in the average composing room:

Is ventilation good?

Is DRY sweeping done during working hours?

Is dust removed from type cases in the composing room and, if so, is it done by means of a vacuum cleaner?

Are hoods placed closely over linotype metal pots and are pipes carefully connected?

Are fumes or dust generated in the process of work?

Are lavatories well kept?

Is the ordinance prohibiting spitting on the floor enforced? Are cuspidors available for use and are they cleaned daily?

Are INDIVIDUAL drinking cups and towels used?

Are lockers provided This eliminates the necessity of hanging street clothes in the workroom where they may be exposed to lead dust.

Are electric and gas lights properly placed and properly shaded? Do they cause eye-strain or a glare?

It is true that many composing rooms in the Greater City are models—from a sanitary point of view—for workrooms

in all other industries, but unfortunately there are a number of printing establishments where unsanitary conditions exist. Those desiring to make complaints are assured that all communications will be held in strict confidence, and the names of complainants will NOT be divulged.

Address Secretary of Committee, 616-618 World Bldg., New York City.

Public Decency and Public Health.

Hygienists are beginning to recognize that some of the public expenditures which are the outcome of modern demands for improved sanitation are not always directly justifiable on the plea of a menace to public health. Municipal baths, for example, embody elements of comfort and personal luxury as well as factors which contribute indirectly to health. Certain aspects of the complex problems of garbage collection, such as the transportation of decaying organic matter through public thoroughfares, are often objected to on the plea of danger to the health of the community, whereas it is usually the senses of sight and smell that are offended rather than the general physical well-being of the persons concerned.

It is important to analyze public needs thoroughly and locate them exactly. It is a sign of progress to see that some of the demands which a hasty consideration might ask health authorities to satisfy are henceforth to be charged to the needs of public decency. The distinction has been clearly exposed by Director Armstrong, of the Department of Social Welfare of the New York Association for Improving the Condition of the Poor. He has pointed out that many communities provide the means for the cleansing of human bodies. It is just as essential to health and decency that public facilities, where private ones are lacking, should be provided for the cleanliness of the garments, the condition of which must otherwise lower the tone of decency of the people of the community. Decency is emphasized by Armstrong, because it is essential that health workers should realize more and more that it is impossible to justify most of our expenditures in certain directions, if we consider these expenditures to be inducive to health alone. It is difficult, he reminds us, to ascribe ill health to dirty streets, unsightly back yards, and such undesirable elements in our physical environment for the elimination of which we spend thousands yearly, not in reality to maintain public health, but, as a matter of fact, to establish public decency.

Among the mass of the poorly housed tenement population of the large American cities, the facilities for washing and drying clothes are decidedly meager. A statistical inquiry among families representing more than 200,000 people on the east and west sides of New York City showed that the percentage of families without equipment was as follows: without bath, 92 per cent; without wash tubs in the home, 40 per cent; without hot water, 87 per cent. In this country there are as yet few places in which people who have very inadequate home facilities may go and wash their clothes under decent and sanitary conditions for a small cost and with a minimum of time expenditure. Public laundries as wash houses have long been in use in foreign cities. With thirty-five such institutions in the city of London alone, patronized by nearly a million washers, may be contrasted eighteen in the entire United States, of which five are in Baltimore.

Experiments now under way by the New York Association for Improving the Condition of the Poor indicate that mechanically equipped wet wash laundries, even when run under quasipublic auspices, are likely to prove successful and fill a need in the community. The necessary capital investment is by no means prohibitive of further investigation in this direction. Public and private health and decency demand some provision of this sort in many places, even if the scheme adopted is only palliative and the plan not final.

Dr. Armstrong maintains that suitable municipal washing facilities have an educational value in addition to the purely utilitarian advantages. He summarizes his argument as follows: The public wash house, like the public bath, finds its chief justification in the fact that it gives to people an opportunity to learn how to be clean, and makes it possible for them to appreciate the value to health and decency of being physically clean. Physical cleanliness enhances our moral and spiritual tone. The people will recognize more acutely their housing and municipal defects, and will demand even more energetically than at present that equipment for clean bodies and clean clothes, whether within or outside the home, which they will have learned to use and value, and the importance of which, for the preservation of health and the maintenance of decency, they will have been educated to appreciate.—(*J. A. M. A.*)

The United States Public Health Service is the nation's first line of defense against disease.

Sanitation Possibilities.

It seems well nigh impossible to make the people see what can be done in saving their health and their lives by proper sanitary measures, even in the face of such tremendous examples as Cuba, the Canal Zone, and districts where large government undertakings are in progress. To change, in a few months, the pest-hole of the world—the Isthmus of Panama—into one of the healthiest places on the globe, one would think would be of sufficient importance to make everybody in every community sit up and take sufficient notice to demand the like conditions in his own "home town." But not so. The Canal Zone health history has been repeatedly written up and many articles on it published in all kinds of public press. Similar examples of what can be done in conserving life and health as against preventable disease are to be found in many places, for the looking. In Idaho, near Boise, for more than four years, something like 20,000 men were employed in building the great Arrowrock dam, whose completion was celebrated October 4th. There was not a single death from any contagious disease during all this time, and but one case of typhoid, which probably originated outside of the camp. Intelligent sanitary rules and regulations were made and rigidly enforced and the work progressed without a hitch and without disease. Incidentally it may be said that the project, which it had been estimated would cost about $7,500,000, was actually completed at a cost of about $5,000,000. So much for what can be done under proper sanitary control; but the citizens of our community prefer dirty diseases to cleanliness and health. And they don't understand how many actual dollars the healthful conditions save for them!—(*Cal. State Jour. Med.*, Vol. XIII, No. 11.)

Death Rates in the Registration Area of the United States in 1915.

A preliminary statement just made public by the Bureau of the Census shows a death rate of 13.5—the lowest on record—per 1,000 estimated population of the registration area of the United States in 1915. This rate was based on 909,155 deaths returned from 25 States (in one of which, North Carolina, only municipalities of 1,000 population and over in 1910 were included), the District of Columbia, and 41 cities in non-registration states, the total population of this area in 1915 being estimated at 67,337,000, or 67.1 per cent of the total estimated population of the United States. The most favorable year prior to 1915 was 1914, for which the rate was 13.6. It is markedly lower than the average rate for the five-year period 1901 to 1905, which was 16.2. The decrease thus amounts to 16.7 per cent, or almost exactly one-sixth, during a little more than a decade. When due allowance is made for the addition of many new states to the registration area between 1905 and 1915, and the comparison is confined to the group of registration states as constituted during the period 1901-5—the present population of which is about one-fourth of the total for the country—there is still shown a very considerable decrease, from 15.9 to 14.3 per 1,000 population, or 10.1 per cent. This decrease, on the basis of the present population, would amount to 42,876 deaths. On the assumption that a corresponding reduction has taken place throughout the entire country, this would indicate a saving of approximately 170,000 lives in 1915 for the United States as a whole.

Death Rates for States and Cities.

The following table gives the death rates in the registration areas of the United States for the past three years separately and for the consecutive 5-year periods 1901-1905 and 1906-1910.

In the states for which death rates for 1901-1905 are given, the greatest proportional decrease between that period and 1915 is shown for Rhode Island, 16.9 per cent. Next in order are New York, with a decrease of 14.6 per cent; New Jersey, 14.3 per cent; Massachusetts, 12.7 per cent; Vermont, 9.3 per cent; Connecticut, 5.1 per cent; Indiana, 3.8 per cent; New Hampshire, 3 per cent; and Maine, 1.9 per cent. Michigan alone showed a slight increase, eight-tenths of 1 per cent.

Among the cities having 100,000 or more inhabitants in 1910 the tendency is toward a still greater reduction in mortality. The following-named cities show, for 1915, decreases of 20 per cent or more as compared with the 5-year period 1901-1905: Newark, N. J., 29.9 per cent; Atlanta, 28.4 per cent; New York City, 26.8 per cent; Los Angeles, 25 per cent; Jersey City, 24.9 per cent; Pittsburgh, 23.9 per cent; St. Louis, 22.9 per cent; Denver, 22.7 per cent; Providence, 22.3 per cent; Paterson, 21.9 per cent; San Francisco, 21.7 per cent; Fall River, 21.7 per cent; Louisville, 21.1 per cent; and Nashville, 20 per cent.

Correspondence

Birth Control.

To the Editor of THE MEDICAL TIMES:

I am informed that in Newark, N. J., in an establishment called a *school* where they teach grown girls, how, after marriage, they can escape motherhood.

In all animal life in the world there exists no such gross abuse of the sex functions as in the civilized human being. The rarest thing in the experience of veterinary medicine is a disease or disorder of the sexual organs. Why do these diseases occur in the human species and particularly in the *civilized* human being? Is it not because of abuse of the sexual organs? Where would the calling of the gynaecologist be, if the female sexual organs were not abused by unclean contact?

The Creator made the sexual organs to perpetuate the species. To side-track or pervert nature is a violation of the holiest law. Over 60 per cent. of the inmates of insane asylums are there because of onanism. The Roman empire fell because of such dissipation of the Romans; degeneration followed insults to nature, for which they had built special structures. Today real high character and sex purity resides in the minority of human beings. We gallant men make the laws, arrest and imprison the prostitute, and let the prostitutor, our fellow, go free; why?—because some men, did I say men, no, mongrels, perhaps patronize a similar institution. A mongrel man will use all sorts of vague excuses, like "saving his wife"—"his wife is not well" because he, perhaps, ruined her health by impure contact. Some men may claim that sexual contact is a necessity, but it is not. Prisoners must live without it; many animals in captivity thrive; sexual function rests there. The spermatozoa collected in the vesiculi seminales are reabsorbed or spent in overflow.

Sexual contact is a necessity for procreation to perpetuate the race. Natural laws (morality) should control births, not trickery. The promoters of criminal birth control are even bare of the daring courage of the abortionist; the fear of punishment is all that keeps them straight, so they want to legalize this insult to nature.

May I ask for information regarding the remedies of these promoters? How will they limit births? Is it by sterilization of the male, by *x*-raying, or by execution of the vas deferens, or by altering as in oxen, or hogs, or cats, or dogs, or horses? A stallion becomes more docile and manageable by excision of one testicle. Or would they spay the female as is done in China?

A clean pedigree will surely bring forth a good pedigree, as we see in all our cultivated domestic animals and even in plants. This is evolution upward; mongrelism is evolution downward.

If some poor woman has too many children, make room for benevolence. We physicians do so much for the poor without pay. Sterilize the drunkard, the incorrigible criminal, and we will be able to raise a fund for poor families with too many children. Search the records, and you will find that the most successful and great men, great in business, letters, invention, etc., have their origin in poor families.

Such moral birth control will invite the support of most idealists. The operative birth control must have its origin in courts of law and justice, not in the profession of medicine.

Give those of good pedigree and pure morals a better chance. Boost the survival of the fittest. We have been, I fear, doing too much for the unfit, which, more or less, are an unthankful burden on the community. Look with scorn on perversion!

New York. J. HERMAN BRANTH, M. D.

"Bleeding the Doctor."

To the Editor of THE MEDICAL TIMES:

Permit me to thank you for your editorial in the December number on "Bleeding the Doctor; a New Sport." Also let me cite two personal experiences the past season.

After attending a compound fracture of a foot, and contending with evidences of infection, I rendered my bill. After an interval of time; intended doubtless to contribute to my sense of the dignity of the compensation insurance company with which I was dealing, I was requested to furnish a bill of items in full. This was done. After another dignified wait, I was informed that another account was desired, as the one rendered was too large. I wrote the company that it would make no difference in what form the account was rendered, the amount would remain the same; that the amount which they deemed proper—for they kindly furnished me the *proper* amount of my bill—was less than the price of the services of a livery horse to convey me to my patient, and that I valued my services above that of an old horse if they did not. Moreover, that I considered myself more competent to judge of the needs and condition of my patient, than a compensation claim adjuster in a distant city or any one acquainted with his office.

The result was that I received a check for the amount of my bill in full; but doubtless the firm by whom the injured workman was employed have also been instructed to engage a more manageable if not cheaper medical attendant in the future.

Your editorial also might be easily applied to lodge insurance which employs the same methods with others than their contract doctor. Recently a member of the Knights of Maccabees, who belongs to a family in which large tonsils are a characteristic, applied to me for treatment for his first attack of acute tonsilitis. Upon his recovery I advised a removal of a portion of the hypertrophied tissue as a prophylactic measure. This was done. The central office in some remote portion of the United States under the advice of the Grand Medical, High Muckly Muck, decided the cost was excessive, the medical bill too large, and, moreover, that the patient had the disability before he joined the lodge and, therefore, the claim was N. G. And this, too, in the face of the fact that he wore the same pair of tonsils when the local examiner for the organization in question passed him as sound and all right, which he did when he applied to me for treatment. I am personally disgusted that the medical profession ever was easy mark enough to fall for such methods, and I am elated that the better class of physicians are fast refusing to submit to such abuses. W. B. WEBSTER, M. D.

Schuylerville, N. Y.

The Futility of Prohibition.

To the Editor of THE MEDICAL TIMES:

Your editorial in the January issue on "The Futility of Prohibition" is most welcome, since it indicates that the arguments in support of the liquor traffic have apparently reached what the editor of Jim Jam Jems would most aptly designate as "The End of the Limit."

For a trained physician to compare sleep, a renovator of physical energy and mental force and an indispensable of continued health and life, to alcohol, a toxic substance the least indulgence in which has been proven to lower the mental and physical efficiency of the indulger, seems to me incomprehensible.

The contention that "prohibition does not prohibit" seems to me to be an infantile argument. Laws prohibiting theft, murder, etc., do not prohibit these crimes; yet I hardly believe that you would deny that such offenses are very largely restricted by the laws which make them illegal and punishable.

If the sale of liquor is a good thing, why think of any "rational governmental control of the industry" at all? The sale of groceries, fuel and clothing requires no governmental control—why liquor?

Very truly yours,

New York. JAY H. RADLEY, M. D.

In our editorial we compared the evil effects of insufficient sleep with the toxic effects of alcohol. We did not compare sleep to alcohol, as Dr. Radley puts it.

Either of these evil effects might show an inability to read correctly and understand a short and simply expressed editorial article, like ours. Ed.

To the Editor of THE MEDICAL TIMES:

I wish to commend the great mass of editorials that appear in your valuable journal by saying that they are by far more intelligently and fairly written than the one in the current number on "The Futility of Prohibition." I could say the same of the editorials in all the other journals I read but I do not wish to damn them with faint praise.

Very truly yours,

Wyalusing, Penn. C. H. B. TERRY, M. D.

It is impossible to tell from Dr. Terry's letter whether he read the editorial in question more carefully than Dr. Radley. If there were anything in his letter to show that he did we should be more impressed.

We are inclined to think that some of our friends immediately begin to run a high blood pressure and to brush up their Crile's action-patterns whenever they read anything against prohibition.

We react the same way against some things ourselves.

Doubtless we all have the same ultimate aim—wholesome life and human happiness.

Ed.

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Poison Gas, Alias Health Insurance.

"The fear of ruin has recently driven many physicians into the advocacy of schemes for State health insurance, State aid, and even into schemes for panels such as exist in England."—N. Y. *Sun*, Dec. 18, 1916.

Is it only because of such an extremity as this on the part of the American profession that the accelerators of health insurance hope to make vassals of us?

Is the measure as rotten as that?

Why is it that the medical bureaucrats who are aiding and abetting the lay accelerators of health insurance talk so much about the incompetence of the general practitioner, the very man whom they would have their press gangs conscript for service under the Act? If he is good enough for service under health insurance, why is he a medical pariah now? Why should the passage of the proposed bill transform him?

We think the psychology of the bureaucrats is quite transparent. They are men who have either never practised much themselves, or have failed as general practitioners. They are out of touch with this phase of professional life and in their subconscious minds realize their own incompetence. Upon this basis they develop the notion that the practitioners are incompetent, too.

Yet such is the bureaucrats' obsession regarding health insurance that they believe some magical influence flowing from it will, even through the instrumentality of the incompetent force, reduce the incidence of disease in the communities blessed by its operation.

They go further. The silly assertion is made that health insurance will abolish poverty—that the reason why there are no slums in Germany is because of health insurance. Health insurance has *not* been successful in Germany, and Mr. Lee K. Frankel himself has admitted that "there probably is not a more unpleasant and ignominious conflict in the whole history of social development in Germany than the conflict that has been going on between the medical profession and the Krankenkasse in Germany [and this for twenty-five years]."

Mr. Miles M. Dawson admits that in Leipsic—the best example of health insurance in the world—the physicians have had to struggle to obtain better conditions for themselves. Where German efficiency is faulty, what have we to expect? The Leipsic doctors, says Mr. Dawson, have done the best work in the world and deserved to be well compensated, and that, he declares, is not a criticism of the system. There you have it. If we are not properly paid for our work it will not be a criticism of the system.

Mr. A. S. Comyns Carr says that "The community has been accustomed to regard medical men as amiable weaklings in business matters, easily gulled by piteous tales or flattering remarks about the magnanimity of the profession." Let us give some people a good jolt, now that we have the chance.

Dr. Delphey properly asks: "Are we yet ready to lose our professional identity, and instead of being individualists become merely cogs in the great medical machine?"

Every effort is being made to persuade us that a bill can be framed that will not debase the quality of the medical service rendered by us, yet it is admitted that medical officers will supervise our work in order to "protect" the public.

Labor does not want health insurance if it has to pay for it, which is equivalent to saying that it doesn't want it at all, for even were the employers, or the employers and the State, to pay the whole cost, we know very well that the burden would be carried by industry in the last analysis. Labor would pay the freight in any case.

Why stupidly ignore the sources of this great gift that is being vivisected into us? A perusal of the names of the lay promoters ought to be enough to decide us without further parley. One's blood curdles as the list is read.

The medical men who have done their best to waft this poison gas over us will need no gas masks, for they won't have to work under the Act.

We don't question their sincerity, but we are not in sympathy with their motives, which involve other things besides the public health. That all their interests in this precious matter are identical with those of the "incompetent" body of the profession we deny unqualifiedly.

It is amusing to hear the advocates talk about what will happen under health insurance. Professor Irving Fisher of Yale says that "there is no other measure before the public which equals the power of health insurance toward social regeneration." Just why such a palliative device, designed to substitute paternalism for economic justice, should regenerate society is a puzzle.

Miss Lathrop, of the Children's Bureau of the United States Department of Labor, tells us that 93.6 per cent. of all the 1,564 babies born in the year ended Oct. 31, 1913, in Manchester, N. H., were in families where the father earned less than $1,250 per year. She believes that such cases should come under health insurance everywhere in the country, and estimates that 2,500,000 women who become mothers each year would be included. She thinks that preventable mortality and morbidity would be less in such cases under

health insurance. Maybe they would, but why such keenness for palliative Kultur for our industrial democracy? So far as we can see, Miss Lathrop's figures merely constitute an indictment against labor conditions in Manchester.

Will health insurance insure to workers a fair share of the profits of industry? Will it make the homes of the workers more habitable? Will it do for the workers what economic justice would do? Would any of the advocates of health insurance accept its medical service in lieu of the character of service they expect themselves? What they get themselves is none too good for the workers. Any self-respecting, economically independent workman should be just as free as they in his manner of approach to the medical profession. This is not an impossible ideal, except in the minds of those who are determined to perpetuate our industrial serfdom. Shall they be permitted to get away with their feudalism? Shall we permit their accelerators to obfuscate us?

"Fear of ruin" is the very thing that should deter us from accepting health insurance.

Professor Fisher reproaches us for lagging behind certain European countries in the matter of health insurance. Why such eagerness to see in this country a social wretchedness uniform with that which in those European countries has made health insurance possible? The foundation principles of health insurance run counter to every true American standard and to all ultimate ideals of social decency. It is a compromise, an evasion and a surrender. It is the substitution of Prussianization for liberty, which is not a fair exchange. How shall the test be met by the medical profession?

Professor Henry Fairfield Osborn asks, speaking of the bloody battles in Europe, which shall prevail, matter or spirit? He declares that we are under the shadow of the greatest disaster which has ever befallen the human race. It is the triumph of Prussia that he fears. How comes it, then, that we are tumbling over ourselves to adopt Prussian civilization at so many points in our social organization? If we are so crazy to assimilate Prussian methods whence comes our fear of the war's outcome?

It has been said that "To-day we have an exceilent rough-and-ready way of determining professional intelligence, namely, how groups of medical men react to health insurance proposals."

What will the glorified Binet-Simon intelligence test now being applied to us finally record?

Let us hope that the handwriting that will be read upon the wall by the bureaucrats and accelerators and those whose retainers they are shall be: WE DO NOT WANT IT.

The American Congress on Internal Medicine and the First Convocation of the American College of Physicians.

The American Congress on Internal Medicine, which met in New York late in December, successfully inaugurated a new departure in advanced professional organization. The internists are now effectually linked together and their status fixed in the same manner as that of the surgeons who constitute the American College of Surgeons.

Fellows of the College are chosen from members of the Congress, which will hold annual clinical meetings.

The internist, with his broad field, is the most significant figure in modern medicine. To him belongs the future. The days of narrow specialism are numbered. The thoroughly educated physician is the successor of that earlier practitioner about whom cluster the noblest traditions of the profession. He crystallizes in his person and in his accomplishments all that modern society is demanding of its medical men. Out of the recent chaos he is emerging full panoplied. In him our hopes for the full flowering of medicine and the maintenance of its best standards are centered.

What has happened has had to happen, and it is the proper remedy for the anomalous state of affairs that has painfully marked a great transition period, during which we have feared more than we have hoped.

The internist is diagnostician, in the broadest possible sense, and therapeutist as well. He dominates the whole field. He determines operation and therapy. He is the master, and all others must be his handmaidens.

Gracefully and gratefully we acknowledge his relation to the new scheme of things.

There can be no dissenting voices, for beside the greater glory of medicine no cavillings dare be croaked nor any fleshpots flaunted.

Pacificism From a New Angle.

What those who are displeased with the activities of the pacifist are pleased to call his psycho-pathology may after all derive from the fact that in his heart the pacifist is a fighter. In a recent issue we pointed out that the psycho-pathology of the anti-vivisectionist really derives from naturally cruel instincts. Professor John Watson, of Johns Hopkins University, has drawn attention to the fact that "objection to the Freudian view of things seems to stand in almost direct ratio to the amount of repression the individual possesses." A writer in the *New York Medical Journal* of December 2 asks if it can be that the noisiest anti-Freudians are in the same class as reformed drunkards and drug victims, who are always the most anxious that alcohol and narcotics should be universally prohibited. These antis may themselves be inherently immoral and nasty. Then Brill has shown how opponents of noise may really be lovers of it, and be very noisy themselves. Thus John Stuart Mill hired a boy to beat a drum to facilitate his thoughts, Hegel finished a great work during the cannonading at Jena, Dickens was unhappy when away from noisy London, and was made ill by the quiet of the country, Carlyle annoyed his neighbors by his loud rhetoric, and Wagner wrote the loudest music, yet these men were all rabid opponents of noise. Carlyle worked in a sound-proof room in the quietest part of London, yet once talked to Darwin in a loud voice for three hours about "the sacred force of silence!"

Dr. William A. White, in his "Mechanics of Character Formation," states that "strong antipathic feelings such as hate and disgust are efforts at prying the energy free from lower levels so that the plane of conflict may be carried higher. The man who expresses abhorrence for a certain act is much nearer the possibility of such an act himself than is he who can view it undisturbed and with a judicial attitude of mind, and he therefore must summon all his reserves to escape it."

We have long suspected the pacifist as really our star fighter in disguise. The courage with which he beards militaristic lions is significant.

And now comes to us a dreadful though logical thought. What about the militarist? We mean the rabid, terrifying militarist, with blood-flecked foam upon his lips, his demands for the execution of the pacifist as a traitor, and his insistence upon arming children and conscripting everybody in any circum-

stances. Have you not noticed that oftentimes he is an individual who has not the slightest chance of ever being called into action? What about this party? Is he a bluff?

Listen to the pacifist Bertrand Russell, who has been such a thorn in the side of the British Government during the war: "If the authorities at the War Office were capable of philosophical reflection they would see an interesting refutation of militarist beliefs in the terror with which a handful of pacifists appears to have inspired them. They have on their side the armed forces, the law, the press and a vast majority of the public. The views which we advocate are held by few, and expressed by still fewer. To meet the material force on their side we have only the power of the spoken or written word, of the appeal from passion to reason, from fear to hope, from hate to love. Nevertheless they fear us—such is the power of spiritual things even in the present welter of brute force."

Russell's courage must be of the highest order, for he senses fully the dangers that he challenges. What is he if not a fighter of the highest class himself, for all his pacifism?

Interesting Views.

"The people are not content in serious cases to consult only the general practitioner. The other day a woman was sent to this city by her home doctor to find out what ailed her, and within two days she had consulted five specialists, all working on different lines; and she needed them all.

"The man who has a large income can readily obtain for his family all the expert medical advice which is required. At the hospital he can obtain the same privacy which could be obtained in his own home, and can command the skill of a specially retained physician or of a group of clinical collaborators.

"In this State there has been much discussion in the last few months about a 'health insurance' act, under which there would be compulsory sickness insurance. It would provide medical attendance for those receiving $1,200 a year or less, and for all manual workers. . . . I have no doubt that there would be a cry of protest if any one proposed to amend the bill so that persons getting from $2,000 to $2,500 a year might participate in its benefits."—S. S. Goldwater, M. D., in the *New York Evening Sun*, December 21, 1916.

Vision and Progress.

"Vision without definite aim holds an important place in the realm of literature, art and religion. Vision born of the hope of the moral and physical betterment of the people is the rock foundation of all human progress."—*Health News* (Monthly Bulletin New York State Department of Health), Nov., 1916.

The foregoing quotation seems to us to contain a big truth, tersely stated. It reveals the worker for social betterment as after all a cousin to the artist, the writer, and the spiritual genius, bringing to his problem powers no less wonderful than those of his cousins, and possessing, like them, a passion for beauty, expressed in his case in society's realization of health, justice, liberty, happiness.

What vision more beautiful? What human task worth the bestowal of greater energy?

The presence of gonococci in women can often be only demonstrated in the uterine secretion. The secretion should be obtained after disinfection of the external parts of the vagina and the lower portion of the cervix by alcohol or tincture of iodine. The examination should be made shortly before or after menstruation.

Miscellany

CONDUCTED BY ARTHUR C. JACOBSON, M. D.

That Obstetric Case.

The resolve not to take another case.
The persuasive client.
The amiable capitulation.
The formal engagement.
The pre-natal care.
The call to the case at 2 A. M.
The dressing.
The cold night.
The "practical" nurse.
The preparation for examination.
The examination.
The slight dilatation.
The long wait.
The reading of Arnold Bennett.
The fitful nap in the rocker.
The bad cigar.
The imperfectly flexed head.
The second stage.
The near-breakfast.
The failure of progress.
The pituitrin.
The implorings for chloroform.
The decision to deliver.
The kitchen table.
The boiling of things.
The arrival of assistance.
The false teeth.
The anesthesia.
The exile of mother.
The disappearance of father.
The catheter.
The application of forceps.
The traction.
The birth.
The asphyxia neonatorum.
The first squeal.
The tying of the cord.
The lacerated perineum.
The marks on the baby's head.
The nitrate of silver.
The reluctant placenta.
The Credé.
The finish of the job.
The orders for the nurse.
The felicitations.
The preparations for departure.
The assistant's fee.
The after-visits.
The after-pains.
The navel hygiene.
The repair of the perineum.
The sore nipples.
The diet.
The intestinal tract.
The sapræmia.
The anxious day.
The night call.
The return to normal.
The small talk.
The corset details.
The pink marks over the baby's eyes.
The circumcision.
The report of the birth.
The tender vein.

The protracted puerperium.
The first day up.
The baby's colic.
The pelvic examination.
The temporary discharge of the case.
The very moderate fee.
The repetition of the resolve not to engage another case.

One Phase of the Birth-Control Propaganda.

The police raid a birth-control propagandist and capture a large supply of condoms, which have been sold at extortionate rates to ignorant women.

Aside from the sordid commercialism of such an affair one wonders what good it would do the males involved to use condoms habitually? Wouldn't this merely replace damaged mothers with sexually demoralized husbands?

On with the dance; let the nuts be unconfined.

Emotional Debauchery.

We have never thought the proverbial minister's son much of a mystery—provided that the minister was a noted preacher.

The emotional preacher undoubtedly gets intoxicated, spiritually speaking, in the pulpit or on the platform. His activities in this wise often resolve themselves into emotional sprees.

What wonder that the son inherits a temperament that also demands some sort of intoxicant. The father finds it in religious ecstasy, the son in alcoholism.

We once spent a night at the bedside of a physician's dying wife. With us was the patient's brother, a clergyman who had become a noted evangelist. The man's intense emotionalism was manifested not only in the form of demonstratively expressed grief, but also took the form during the waiting hours of a kind of religious rhapsody addressed to the patient's husband and the present writer. In this heaven was visioned and a regenerated society described in flaming language which left the helpless auditors somewhat overwhelmed. There was a decided psychotic tinge to the performance. The doctor was chagrined a bit, and afterward explained, yet it was just such a performance as one would think nothing of in a setting like the evangelist's tent.

Not long after the foregoing experience the writer had occasion to attend the brother of the evangelist in question for dipsomania. The alcoholic was a physician of brilliant parts in his youth, still revealing now and then evidence of the once precious mind. The writer felt a peculiar understanding of and sympathy for this man because of the experience with the evangelist.

In this connection one naturally thinks of Billy Sunday. The pathological implications in such a case as his stand out strongly. It would be interesting to have the complete family history of all our famous evangelists for comparative study.

Respiratory Euphoria.

The cults which lay special stress upon deep breathing as a part of their "spiritual" folderol probably owe their origin to mystics of the past, who found empirically that their psychical exaltation was in some way associated with proper diaphragmatic and costal exercise. Instead of merely founding a system of hygiene upon the benefits accruing from deep breathing, they made the deep breathing part of the ritual by which they manifested their exaltation. Men have always had a trick of inverting the significance of like experiences. Circumcision, probably at first adopted because of hygienic results, soon became a religious rite.

The New Christology.

We were getting on nicely up here to our village,
With good old idees o' wut's right and wut ain't,
We kind o' thought Christ went again' war an' pillage,
An' that eppylettes worn't the best mark of a saint.
But John P.
Robinson, he
Sez this kind o' thing's an exploded idee.
James Russell Lowell's *Biglow Papers*.

Syphilis

Diagnosis and Treatment of Syphilis.

In discussing the treatment of Syphilis, John A. Fordyce, of Columbia University, says there are certain general considerations in regard to the therapeutic armamentarium worthy of mention. The object of any energetic antileutic treatment is the destruction of the greatest number of spirochetes in the shortest possible time. From our knowledge of the immunological and pathological processes in the disease this is best accomplished in the early stage, and from experience accrued during the past five years is more readily and more certainly brought about by the combination of salvarsan and mercury. It has been amply demonstrated that salvarsan is essentially a spirocheticide which, while it has very little influence on the organisms in the test tube, is actively germicidal *in vivo*. Mercury is the best-known germicide *in vitro*. When employed experimentally in animals infected with trypanosomiasis or relapsing fever it is practically inert as far as its effect upon the organisms is concerned and the fatal termination of these diseases is not delayed. In spite of this negative evidence, however, it has been demonstrated empirically for many years that mercury has a curative effect in syphilis, and since the cure depends upon the more or less complete saturation of the patient with the drug, its action is presumably a direct one. Nor has it been shown that the iodides are spirochetotropic in their action. Potassium iodide has no effect on the early lesions of syphilis and only a neglible one in rendering the Wassermann reaction negative. It has, however, a profound physiological effect aside from its specific therapeutic action. The latter, in gummata, has been explained by Jobling as due to the to the neutralization of the antiferments which prevent autolysis and absorption of the necrotic tissue, at the same time rendering the infecting organisms which had previously been protected by the necrotic tissue accessible to the parasiticide.

Salvarsan, by virtue of its spirocheticidal properties, finds its greatest field of usefulness in primary and secondary syphilis when the organisms are abundant. In the later stages, when they are few in number and the tissue changes are more marked, one would naturally expect less results from this agent. As a matter of fact, in gummatous and periosteal lesions and all the active manifestations of late syphilis, the therapeutic effect of the drug is almost as intense as in the early contagious period. This is especially true of patients who have been treated over a long period of years with mercury and potassium iodide and have become more or less immunized to the action of these drugs. He has seen patients with periosteal lesions and febrile attacks and numerous cases of so-called malignant syphilis in whom mercury and potassium iodide were practically inert very quickly respond to salvarsan. The following case is a typical example:

Woman, aged forty-two years; infection eleven years ago. Treatment for three years by mouth and injections. When seen September 7, 1915, she was suffering from periostitis of the right parietal and frontal bones, of the sternum and right shoulder. For several months she had been running an evening temperature of 101° to 101.5° F., with headache. During this time mercury and potassium iodide were administered without effect. On September 9, 1915, she was given 0.25 gm. salvarsan. Her pains, headache and fever disappeared in two days, and there was a most marked general improvement. Since that time she has had six small doses of salvarsan and two of neosalvarsan, and has gained over thirty pounds in weight.

In early active syphilis, salvarsan alone has been followed by neurorecurrences and monorecurrences or early tertiary lesions. In cases of initial lesion seen before the Wassermann reaction is positive, salvarsan may perhaps be given without such danger. It is better, however, not to rely on this drug alone to

establish a complete cure, but to give the combined treatment. It has been claimed by Wechselman that such combination was more apt to produce kidney involvement, but this contention has not been substantiated by the majority of observers. Fordyce's plan is to give a course of mercury with the salvarsan, the number and size of doses of both agents depending upon sex, body weight, and general condition of the patient.

The salvarsan is given in courses of five or six injections in doses of 0.3 gm. to 0.5 gm. for men and 0.25 to 0.4 gm. for women at intervals of one week to ten days. The mercurial injections are given every day or every alternate day if a soluble salt is employed, or once a week if an insoluble one. The author's preference in case of the former is the bichloride of mercury in courses of twenty to thirty injections given daily or every other day. Of the insoluble preparations, gray oil (in the form of mercurial cream), of which 5 minims represent one grain, in series of ten to twelve injections of salicylate of mercury (40 per cent. suspension) in dosage of 1 to 3 grains gradually increased, ten to twelve injections constituting a course. Both salvarsan and mercurial courses are followed by a rest period of six weeks and then the procedure is repeated. Wassermann tests are made periodically, but treatment is not interrupted because of a negative reaction until the adequate amount of medication has been given.

When visceral lesions are present salvarsan should be used in small doses, repeated at intervals determined by each case. In cardiac conditions it is better to precede with mercury or mercury and potassium iodide. They are greatly benefited by the latter drug. Fordyce has given salvarsan in these cases without untoward symptoms. Whatever form of treatment is decided upon it is important to carry it out persistently. The progress of any active condition can be checked, but anatomical changes like sclerosis or aneurysm are of course permanent.

In primary syphilis before the Wassermann has become positive it is possible to abort the infection both clinically and serologically. While in the past this has been accomplished in some cases with a minimum amount of treatment, such patients now receive two courses each of salvarsan and mercurial injections.

In secondary syphilis with a positive Wassermann it is frequently necessary to give three courses of salvarsan with mercury before the desired effect on the serum reaction is obtained.

In tertiary syphilis the method of treatment depends upon the tissues or organs involved. It is of advantage to combine the courses of salvarsan with intramuscular injections of mercury and to follow this with the prolonged use of potassium iodide and mercury in the form of mixed treatment.

In so-called latent syphilis the administration of salvarsan alone often fails. The author has a number of cases in whom the Wassermann reaction continued to show complete inhibition after repeated courses. In many individuals with a positive serum when the nervous system is not involved, careful examination may reveal an aortitis, interstitial glossitis, or the remains of a hepatitis or other viscereal lesion with residua sufficient to call forth a Wassermann reaction. It often requires the most painstaking care to reveal the possible location of the disease. For instance, the nervous system may be implicated and only manifested by slight pupillary irregularity or a slight change in the knee-jerks which might easily be overlooked unless the examination is made by a carefully trained clinician. The spinal fluid should be examined when these deviations are indicative of involvement of the cerebrospinal system, and in all cases with a persistent blood reaction when a focus cannot be determined in the skin, mucous membranes, or viscera. Even in the absence of signs pointing to such implication a Wassermann which does not respond to therapy is an indication for lumbar puncture. More benefit is derived in latent lues from the old-fashioned mixed treatment—that is, a combination of mercury and potassium iodide in a liquid menstruum—than from salvarsan alone or combined simply with potassium iodide. With mixed treatment Fordyce has in many instancess accomplished the reversal of the Wassermann which had remained persistently positive under salvarsan and mercury.

From Stühmer's experiments the greater part of salvarsan introduced intravenously is stored in the lungs, liver, and spleen in about equal quantities. These form depots from which the drug reaches the circulation, most of it probably passing unchanged through the kidneys and intestines. From the latter a sufficiently large amount is excreted, so that if intestinal disturbance is present marked toxic oxidation products are produced which, when absorbed, may lead to severe reactions.

The reaction following the use of salvarsan may be divided into immediate and delayed.

1. *Immediate.* The commonest symptoms are flushing of the face, cyanosis, a sense of fulness in the head, and precordial distress with slight dyspnea. They usually come on during the administration and may be regarded as anaphylactoid in character. They last but a few minutes and many patients complain of feeling weak or enervated for the next day or two. More rarely patients are met with in whom vomiting occurs during the administration. In a case under treatment this takes place after 15 or 20 c.c. of the solution are introduced. When the attack has passed off the remainder of the dose is taken without trouble. A psychical element is probably present in this case. Occasionally attacks of severe pain in the lumbar region come on during the flow of the drug and necessitate its interruption. After half an hour or so it passes off, the patient experiences no further inconvenience, or he may after an hour or more have a chill with temperature and vomiting. These reactions usually come on after several injections have been given.

2. *Delayed.* The symptoms appear after twenty-four hours, three days or longer. Those after twenty-four hours are usually gastro-intestinal, preceded by a chill or chilly sensation, and are characterized by vomiting and diarrhea with a temperature. In another type there is simply malaise for a few days and then the patients become actively ill with vomiting, fever, and a rash or jaundice, the latter the result in all probability of the action of the arsenic on the liver cells. Rarely suppression of the urine is encountered, and this may be attributable to the direct action of the drug on the renal vessels.

As the majority of the reactions come on only after several doses have been given, one should be warned by their occurrence and regulate the interval and dosage accordingly. In cases in which a dermatitis has been present the drug should not be repeated within six months or a year. The author has seen death follow in a patient in whom the significance of such a rash was disregarded during intensive treatment with neosalvarsan. The injections were continued and a most extensive exfoliative dermatitis developed, ending fatally. In his own experience there have been two deaths which may be said to have been directly attributable to salvarsan. In the first, a markedly alcoholic man, aged forty-two years, the infection was nine years old. For this he had had treatment at intervals for six years. When seen he presented a tubercular ulcerating syphilide of the face, scalp, and left arm. He was given mixed treatment, under which the eruption disappeared. On December 30, 1914, he received 0.35 gm. salvarsan, January 11, 1915, 0.4 gm., January 22, 0.4 gm. After the last treatment he had a slight reaction and a change was made to neosalvarsan, 0.6 gm., on February 10, 1915, which was repeated February 20, 1915. Three days later he developed a temperature of 102° to 104° F., and a generalized dermatitis which partially subsided after a week and then recurred with increased intensity. It involved the entire cutaneous surface, the integument became thickened, leathery-like in consistency, and pigmented. After a few days abscesses developed in various parts of the skin followed by a recurrence in temperature and rapid heart action. These abscesses were opened and drained, but in spite of all the care which could be given the patient death ensued. In this case death could be primarily ascribed to the salvarsan dermatitis and secondarily to the sepsis which followed the cutaneous involvement. The urine showed on March 13 a marked trace of albumin with a few blood and pus cells and a few epithelial casts. On the twenty-third only a trace with a few hyalin casts.

In the second case a woman at the City Hospital, treated in 1911 for an early malignant infection, after the second dose developed suppression of the urine, marked reduction of the blood pressure, vomiting and collapse within twenty-four hours after administration. Autopsy made by Dr. Larkin revealed degenerative changes in the kidney epithelium, in the suprarenal bodies and fatty degeneration of the liver cells.

As mercury has a great affinity for the renal cells the kidney is one of the prime organs to suffer in mercurial intoxication. Hence it is important in the administration of the drug to determine the renal eliminating function and to examine the urine from time to time. From their studies of the various preparations of mercury Schamberg, Kolmer, and Raiziss concluded that the toxicity of the different salts is proportional to the amount of pure mercury contained. After absorption the drug circulates about as a compound of mercury albuminate and sodium chloride, excretion taking place chiefly in the feces and only to a small extent in the urine. It is believed that a definite ratio is maintained between the amount excreted by the kidneys and that present in the general circulation and passing through the renal vessels. The rapidity with which it appears in the urine is taken as an indication of the rapidity and intensity of its effects in the body, its elimination corresponding with its cessation of activity. Its excretion continues for months, and it may appear again after the urine has become free, from which it is deduced that mercury is stored up in the different organs and unless elimination keeps pace with absorption poisoning will result.

When inunctions are employed mercury appears in the urine from the first day on. Elimination gradually increases to a

certain point, then remains for weeks nearly constant, and after cessation of treatment falls again gradually. The method is very efficacious, but, unless in the hands of a professional rubber, uncertain. Its disadvantages are constant supervision and filthiness.

When given orally the amount of mercury in the urine shows marked variations from day to day, due apparently to varying conditions affecting absorption from the intestine. With suddenly increased absorption there is danger of mercurialism.

The results of the treatment of syphilis by intramuscular injections of mercurial salts are more rapid after the use of a soluble than an insoluble preparation. The soluble salt is more rapidly efficacious because it is possible to more quickly mercurialize the patient owing to the more rapid absorption and less local reaction. Excretion begins at once, and if given each day elimination rises gradually and regularly, the amount gradually decreasing when stopped. Unfortunately, to be efficient, the injections should be given daily in doses of 1-10 to 1-5 grain. This, of course, can be done in hospital wards where patients are under continuous observation, but in dispensary practice and private work it is found to be impracticable because of the frequent visits necessitated. For this reason the insoluble salts have come into use. They form a depot of absorption and require to be administered only at weekly intervals. The rate of absorption is of course much slower, the local reaction more intense and the therapeutic effect slower and less reliable. (*Am. Jour. Med. Sci., Oct.*, 1916.)

The Interpretation of Laboratory Reports.

We draw attention to the existing need of a link between laboratory and workshop; and the human body is the workshop of the pathological laboratory. The scientific practitioner must train himself in the interpretation of the laboratory report precisely in the same way as he has become trained in the interpretation of symptoms.

What conclusion can the practitioner rightly draw when the laboratory report is negative? Is he to conclude the absence of the disease of which a positive report would have proved the presence? A negative Wassermann is a good case in point. A paper by William Fletcher on the luetin reaction, clearly shows that this reaction and the Wassermann reaction, while both of them specific reactions in the sense that positive results only occur in syphilis—Dr. Fletcher is excluding from consideration certain unusual conditions alluded to below—may fail to occur in any particular case of active syphilis. In the great majority of instances Fletcher found one or other reaction to be positive; but in a given case, even though both reactions were negative, syphilis was not absolutely excluded. In a demonstration in London Lieutenant-Colonel Harrison took a good deal of trouble to elucidate the various interpretations to be placed on a negative Wassermann, according to the other findings in the case. In the first place, the case might be too early and the blood taken during the incubation period; a later report would then be positive. Or the patient might be, consciously or unconsciously, under the effect of anti-syphilitic treatment; a short period of discontinuance of treatment would then result in the Wassermann becoming positive. Or the case might really be cured and the spirochete infection finally abolished; here further assurance was to be gained by the employment of a "provocative" dose—that is to say, of a small intravenous dose of 0.2 or 0.3 gm. salvarsan (or of 0.4 or 0.5 gm. of neosalvarsan), with observation of the blood 7, 14, and 21 days later. Or, finally, the negative reaction might really be evidence of absence of syphilis, but only so on repeated examination and when all the other factors had been duly considered.

The positive Wassermann also has its various possibilities to consider. In the first place there are a series of conditions apart from syphilis in which the positive reaction has been found, most of them fortunately of rare occurrence or confined to tropical areas. Of these may be mentioned relapsing fever, yaws, trypanosomiasis, malaria and scarlet fever at the height of the fever, tropical ulcer, eclampsia, and certain skin diseases such as psoriasis and urticaria pigmentosa. The last-named are naturally the most likely to give rise to diagnostic difficulty, but the reaction in them is never strongly marked, and the difficulty may be avoided by using a non-syphilitic case of the same skin disease as a control. In the second place, the positive reaction may remain throughout life in cases which have not been efficiently treated at the outset. It is by no means an unheard-of thing for a robust man in late middle life to be found to have a positive reaction, and more than a little consideration must then be given as to whether or no treatment is indicated. These are a few of the points to be considered by the practitioner in receipt of a positive or negative laboratory report. Where the report is quantitative other considerations arise. But in any case the interpretation of the report is a matter for judgment and experience, and it will help pathologist and clinician alike that each should know the working of the other's mind. The arguments must be so prepared, or opsonised, by the one as to be capable of ready assimilation by the other. (*Lancet, Oct.* 21, 1916.)

Unrecognized Lues.

G. D. Head, of Minneapolis, describes an interesting case of a married woman, aged forty-five years, without children. She was well and strong up until her twenty-fifth year, when she began to develop a peculiar train of symptoms, interpreted by various physicians in this country and abroad as nervous exhaustion. She lost weight, became somewhat anemic, tired easily, had spells of faintness, and most peculiar attacks in which while walking upon the street or sitting conversing with friends or at the theatre she would suddenly feel as if a great dark cloud were descending over her, objects were seen and heard at a distance as though looked at through smoked glass. She would become dizzy, and if standing must sit down. After a few moments the attack would pass off. If she were walking upon the street and the attack came on she would support herself by leaning against a building or some near object. Years went by without relief. She became weak and prostrated; all mental and physical exertion tired her; her memory became poor; she expressed herself as good for nothing; living a vegetative existence; going about as in a dream; interested in no one. She lost weight, became depressed, and disheartened. One consultant after another examined her only to state that he could find nothing organic, and that she was suffering from nervous exhaustion.

A careful physical examination of this patient was negative for organic disease. Not a single recognizable symptom or sign of syphilis could be detected. She had a slight secondary anemia. The Wassermann reaction, which had not before been taken, was strongly postive. With this information the patient was questioned closely, and finally recalled that when a young woman, and while engaged to be married, a sore appeared upon her lip similar to one which had for some time been upon the under lip of her fiancé. She had consulted a physician, who had given her medicine for her blood, and the sore had finally healed. She had never had other symptoms or signs of a luetic infection. Her physician had never told her the nature of the infection.

A diagnosis of syphilis was made. The patient was immediately placed upon specific treatment. The result of a year's treatment was marvelous. From a weak, nervous creature of no use to herself or anyone else, she became a strong, energetic, active woman, the attacks of exhaustion, with dizziness and faintness, gone, memory restored, weight regained, able to fulfill her function in life, and interested in the affairs of her home and society.

Here was a patient with lues, suffering from the infection, but without a single recognized symptom or physical sign suggestive of the disease in any organ or tissue of the body. Because of the lack of these symptoms and signs, the various diagnoses of neurasthenia, psychasthenia and nervous exhaustion had been made. It was syphillis without the focal signs of the disease. It was syphilis revealed by a specific test and not by clinical symptoms or physical signs. The patient was, however, as truly suffering from the disease as if she had had gummata in her liver or necrotic bone lesions.—(*Am. Jour. Med. Sci., Oct.*, 1916.)

Local Analgesia for Enucleation of the Eyeball.

The conclusions are based upon the results in twenty-seven cases. The anaesthesia is described as "perfect in 78 per cent., nearly perfect in 11 per cent., and unsatisfactory in 11 per cent." The youngest patient was nine years old and the oldest seventy-six. Unsatisfactory results are attributed to some variation or omission in technique. Two solutions are used: No. 1 contains novocain, gr. viij; cocain hydrochloride, gr. ij; sodium chloride, gr. ij; potassium sulphate, gr. 1½; adrenalin (1:1000) m. viij., and distilled water to 1 oz. No. 2 contains: novocain, gr. iv; cocain hydrochloride, gr. ½; sodium chloride, gr. ij; potassium sulphate, gr. i; adrenalin (1:1000) m. v., and distilled water to 1 oz. A 4 or 5 per cent. solution of cocain is dropped into the conjunctival area. With an ordinary hypodermic syringe about 0.5 c.c. of the No. 1 solution is injected over the insertion of the recti muscles, and continued up to 2 c.c. of the solution. In the next step, with a larger syringe from 3 to 5 c.c. of the weaker solution are injected deeply at the outer and inner rims of the eyeball. The injection is begun as soon as the needlepoint penetrates the conjunctiva, and is slowly continued as the needle is gradually pushed on until the periosteum near the apex of the orbit is reached. The needle is then slightly withdrawn, and a little more of the solution injected. (*Ophthalmoscope, July*, 1916.)

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Mellin's Food is of much assistance in adjusting the diet to correct constipation of infants.

Details of the method of procedure to meet such conditions will be sent to physicians, upon request.

Mellin's Food Company, Boston, Mass.

Dr. Claude L. Wheeler, Dead.

Dr. Claude L. Wheeler, editor of the New York *Medical Journal*, and a brilliant writer on medical topics, is dead after an illness of a week with bronchial pneumonia.

Dr. Wheeler was born in Montreal, March 5, 1864, and was graduated in arts from Laval University and received his medical degree from McGill University. He practised medicine in Burlington, Vt., before locating in New York twenty-six years ago. He was for many years on the staff of the Manhattan Eye and Ear Hospital, and became the editor of the *Medical Journal* in 1909.

Dr. Wheeler was at one time connected with *American Medicine* as an editor. He was a member of the Players, was president of the Fendoph Club and was a Royal Arch Mason and a member of the Legion of Honor. Dr. Wheeler was one of the brainiest members of the profession of medical editors and did much to place his publication in the front rank of medical weeklies.

Death of Dr. Paul M. Pilcher.

Dr. Paul M. Pilcher, a prominent surgeon, and son of Dr. Lewis S. Pilcher, the well known surgeon and author, died from pneumonia January 4, at his home in Brooklyn, in his forty-first year. Dr. Pilcher, together with his brother, Dr. James T. Pilcher, Surgeon of the First Cavalry, directed the hospital at 145 Gates avenue, Brooklyn, which was established by their father several years ago. He was educated at the Brooklyn Polytechnic Institute, the University of Michigan, and in 1900 received his M. D. from the College of Physicians and Surgeons. He completed his surgical education at the Universities of Vienna and Berlin. Dr. Pilcher was the first elitor of *The Long Island Medical Journal* and was a prolific writer. His treatise on cystoscopy stamped him as a careful observer and his surgical work on the kidney was of the highest order.

American Medico-Pharmaceutical League.

At a meeting of the executive committee of the American Medico-Pharmaceutical League January 22, it was reported that the association had elected 1,051 new members in the past four months.

Pre Medical Courses at Long Island.

Columbia University will conduct the two pre-medical college years at the Long Island College Hospital for students intending to study medicine at the latter institution. The first year will run from February 5, 1917, to September, 1917, and the second year from October 1, 1917, to June 1, 1918. Either graduation from high school or 72 counts in Regents' examinations are required for admission to this two-year pre-medical course. In the fall of 1918, all the class A medical colleges will require two years of college study for entrance, and it is necessary to be a graduate of a class A medical school to get a license to practice in most States. Inquiries should be addressed to George H. Dwenger, registrar, Polhemus Memorial Building, Long Island College Hospital, Brooklyn.

A New Medical Journal.

Dr. Philip Skrainka, whose literary genius has made the *Interstate Medical Journal* a widely read publication, has resigned from that journal and will this month establish *Medicine and Surgery*, a medical journal in which the editor will have ample opportunity to show his great literary ability. The medical profession may expect *Medicine and Surgery* to immediately take a position in the forefront of the well edited publications of the country, and physicians who have read the doctor's editorials heretofore will follow his independent career with great interest. THE MEDICAL TIMES wishes him well-deserved success and predicts that his journal will be both unique and of unusual practical value.

Bulletins on Contagious Diseases.

Physicians will be interested in the series of Contagious Disease Bulletins issued by Johnson & Johnson, of New Brunswick, N. J. These publications are intended to help the work of nurses and physicians by enabling them to place in the homes of patients in printed form plain, accurate advice, simply and clearly expressed to supplement their own instructions. The Bulletins give understandable information as to isolation, disinfection and general care of patients when these contagious diseases are present: Diphtheria, typhoid fever, meningitis, scarlet fever, measles, consumption, smallpox and whooping cough.

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Honestly made from the best barley malt, for nearly half a century this pioneer extract of malt has been widely and successfully employed by careful, discriminating physicians who have recognized its remarkable tonic and reconstructive properties. Exceptionally rich in **natural** diastase, maltose and other nutrient extractives, it has been used with conspicuous benefits in **malnutrition, diabetes, incipient tuberculosis as a substitute for cod liver oil, in infant feeding and in all forms of bodily decline where carbohydrate metabolism is defective or impaired.**

In starch indigestion Trommer Extract of Malt, through its influence on the digestive functions, can be relied upon to produce substantial and lasting results. To countless physicians, therefore, Trommer Extract of Malt is not only the ideal corrective of starch indigestion, but also the most dependable and satisfactory nutritive tonic and reconstructive at their command.

Useful and interesting literature on request

THE TROMMER CO., - Fremont, Ohio

LISTERINE

the well-proven and time-tried antiseptic solution, has been prescribed by the Medical Profession with very satisfactory results for 35 years in the treatment of Respiratory Diseases incident to Fall and Winter climatic conditions.

LISTERINE

one part, hot water three parts, is a useful gargle for sore throat. In mucous catarrhs, Listerine, suitably diluted, is most effectively applied by means of the spray apparatus or douche.

LISTERINE

is not only a vehicle for specially indicated alteratives, resolvents and astringents, but is itself an efficient, non-irritating antiseptic that is safe, pleasing to the taste and promptly effective.

A treatise on Respiratory Diseases will be forwarded members of the medical profession on request.

LAMBERT PHARMACAL COMPANY
TWENTY-FIRST AND LOCUST STREETS, - - ST. LOUIS, MO.

Private Pavilion of the Montefiore Home and Hospital for Chronic Diseases.

The directorate of the Montefiore Home and Hospital is announcing the opening of its splendid new pavilion on Gun Hill Road, erected for the treatment of patients suffering from chronic ailments, with the exception of pulmonary tuberculosis, insanity, epilepsy and contagious diseases.

This private pavilion is situated in one of the highest locations in the City of New York, overlooking the Williamsbridge Reservoir, with a commanding view, a beautiful outlook on the adjoining Van Cortlandt Park, and toward the Hudson River and Palisades.

From the recreation room a stone viaduct leads into a spacious garden, with ample walks and shaded by trees. Ample sunshine and fresh air is assured from the pavilion's high location and it is hard to realize that here, amongst such quiet surroundings, one is within thirty minutes from the denser part of the city.

The majority of rooms and balconies have southern exposures. The pavilion is absolutely fireproof, no wood whatever entering into the main structure of the building. The building contains rooms which can be used either as single apartments, or in suites. The rooms are so arranged that each has its own private bathroom, or the suite, consisting of parlor, bedroom and bathroom, can be occupied. If desired, some of these rooms can be rented without private bath, and the patient can utilize the baths and lavatories which are located within convenient distances on each floor.

The pavilion is equipped with all the most modern facilities for medical, surgical and physical treatment.

For the information of physicians interested in further details an illustrated booklet has been issued and will be mailed on request to the Montefiore Home and Hospital, Gun Hill Road, New York.

Prophylaxis of Chronic Constipation of Infants.

Many an infant is constipated, but just naturally "outgrows it." This is usually the case where the causative factor is merely the overcrowding of the colon in a small pelvis. On the other hand, many a chronically constipated infant grows up in his ways into an intractably constipated adult.

Prophylaxis is the thing. Some physicians get the mother to hold the infant over its chamber morning and night immediately after feeding, long before it has mastered the secret of bowel control.

As a measure of prophylactic training in this connection, there is nothing which will help more than interol, for without cathartic action, it lubricates the fecal mass, soft and plastic, into the sigmoid and rectum, whence its expulsion is a comparatively easy matter, in the absence of congenital defects.

This measure, in conjunction with proper feeding or diet and general hygiene, will help the infant or young chid to establish the habit of regular stool so valuable to him in later life.*

*Sample of interol and literature to physicians only. Van Horn & Sawtell, 15-17 E. Fortieth street, New York City.

Increases the Physiologic Efficiency of the Stomach.

In no way is better shown the trend of modern medicine to revive and reinforce—rather than to supersede—the natural physiologic forces of the body, than in the present day treatment of functional gastric diseases.

Among the therapeutic agents that have been found particularly effective in this respect, Seng easily stands at the front. Under its use the gastro-intestinal glands are stimulated, fermentation is promptly controlled, and the distress and discomfort that make the life of the average dyspeptic so miserable, rapidly disappear. And because these results are directly due to the power of Seng to increase the physiologic efficiency of the stomach, they are not temporary and fleeting; on the contrary, the benefits that Seng produces are prolonged, and with removal of causative conditions, the improvement obtained is as permanent as it is pronounced.

Obstipation Following Operation.

There are many theoretical reasons why Interol should be of value to the post-operatively constipated patient. But the best reason is that it *is* of value.

And the most gratifying thing about it is that in most cases, while at first the patient may need as much as ʒI to ʒISS of Interol per day, with time, he can *diminish the dosage* to as little as half an ounce a day, or an ounce every other day, and even discontinue Interol for periods of time.

In many cases, Interol is the last resort to avoid another use of the surgeon's knife.

Dr. Stein to Advertise Antiphlogistine.

The Denver Chemical Mfg. Co. has materially strengthened its organization by the appointment of Dr. Frank J. Stein, formerly of Louisville, Ky., as advertising manager. He possesses a wide practical knowledge of "inflammation's antidote," having, for ten years, covered various parts of the country in calling upon physicians.

Dr. Stein is young, aggressive and resourceful, and it is safe to assume that from now on Antiphlogistine will be better advertised than it ever has been in its 25 years of life.

Special Notice to Physicians, Nurses and Hospitals.

On Jan. 1 the Campho-Phenique Company, 500 North Second street, St. Louis, Mo., by special request, placed on the market a 25-cent package of Campho-Phenique Powder. A liberal package, put up in neat sifter top can for physicians, dentists, nurses and hospitals. Campho-Phenique Powder, 25-cent size, sifter top can, at $2 per dozen; Campho-Phenique Powder, 75-cent net, 1-ounce sifter top can, at $6 per dozen; Campho-Phenique Powder, 1-pound can, hospital size, net, $5.50.

An Ethical Preparation of Merit.

The growing demand for a local application which may be safely used in cases of acute rhinitis, septic conditions of the nose and throat and the various forms of acute and chronic catarrh is manifested by the number of recent inquiries into the composition and merit of nose-ions.

There are two salient facts which have won for this preparation the confidence of the doctor:

First: The ingredients used in its manufacture are of the highest grade obtainable, are non-poisonous and therapeutically active; second, it is absolutely ethical.

Nose-ions is the sole product of the Nose-Ions Company, 269 Madison avenue, New York, and the rigidly clean campaign of advertising which has been instituted and maintained by them has gained for it a position among the substantial preparations before the medical profession.

No more convincing proof of its efficiency can be desired than that its most ardent supporters and prescribers are often physicians who have used it in their immediate families with such satisfactory results that they have continued it in their practice.

The Use of Mineral Oil.

Failure to obtain results from mineral oil is generally due to one or more of the three causes. It is ordered in cases for which it is not indicated or the wrong kind of oil is prescribed or sufficient attention is not given to the very important matter of proper dosage.

The cases in which mineral oil is indicated are those in which it is necessary to lubricate the track and the load. In order to do this the oil selected must have spread, mix and penetrating properties.

The dose must be regulated and adjusted to the individual requirement.

The physician who is skeptical as to the value of mineral oil, will find in liquid albolene, marketed by McKesson & Robbins, the proper oil.

"Albolene arguments," one and two, and "Below the Equator" will be sent him on request so that he can gain therefrom information that will enable him to prescribe liquid albolene efficiently.

Vest Pocket Reference Book on Vaccine and Serum Therapy.

What physician would not welcome a convenient Vest Pocket Reference Book on Antitoxins, Serums, and Vaccines, (Bacterins)? A compendium of this kind is being distributed to physicians, without charge, by Eli Lilly & Co. It contains in addition to a priced list of biological products, brief instructive sections on Infective and Infectious Diseases, the Development of Immunity, Specific Therapy, Serums, and Antitoxins, Anaphylaxis, Indications, Dosage, and Keeping Qualities of Biologicals. The book is thoroughly cross indexed and designed to supply answers to practical questions that arise daily in the administration of biological products.

This handy manual was prepared for free distribution and will be found a convenient vest pocket reference work. It is printed on thin paper, occupies little space, and contains much information of value on vaccine and serum therapy. A copy will be sent without charge to readers of this journal on request made to Eli Lilly & Co.

In severe cases of diabetes it is familiarly known that the urine frequently yields a deep claret-red color with ferric chloride, and this reaction is looked upon as a danger signal.

Catgut Facts

The store of knowledge of surgical catgut has been increased materially within the last few years. The extensive research work of the Johnson & Johnson laboratories, aided by the experiments of skilled operators, has developed some undisputed facts.

Surgeons now know that the quality of catgut depends upon the process under which it is handled from inception.

They know that the catgut twisted at the slaughter-house is crude; that fecal matter, blood, mucus and useless tissue may be more or less imbedded in it, to be discharged later into the wound.

They know that commercial catgut is made from beginning to end by men who ply a most disagreeable trade and who have no knowledge of or responsibility for its final use.

They know that Johnson & Johnson handle every process of the preparation of catgut, from the time of selecting the intestine and its immediate separation after it is taken from the sheep.

They know that Johnson & Johnson disinfect and cleanse the gut before it is twisted, so that nothing remains but a clean, soft, transparent fibre.

They know that the Johnson & Johnson method of applying the chromic hardening solutions while the gut is thin, loose tissue, before twisting, is superior to chromicizing the dry finished cord.

They know that in the Johnson & Johnson laboratories strands from every coil of catgut are carefully tested for tensile strength, and no catgut is used which does not stand the required number of pounds.

The extreme care taken in handling catgut in the Johnson & Johnson laboratories from the very beginning to the very end under the most sanitary conditions insures the production of a ligature that is flexible, strong, surgically clean and free from reaction.

Send for sample and our "Handbook of Ligatures."

Johnson & Johnson

New Brunswick, N. J.

Activities of the American Society for the Control of Cancer.

The American Society for the Control of Cancer, which was organized in 1913 "to disseminate knowledge concerning the symptoms, diagnosis, treatment, and prevention of cancer, to investigate the conditions under which cancer is found and to compile statistics in regard thereto," has recently given an account of its stewardship to the Congress of Physicians and Surgeons under the auspices of which it was established. This report shows that the purpose of the society prescribes two main lines of activity: (1) a campaign of public and professional instruction, and (2) the collection of statistical data. Experimental research, the support of hospitals or clinics, and the care and treatment of individual patients are not contemplated. The government of the society is vested in a board of directors of sixty-six members, including practitioners of recognized standing and prominent and interested lay men and women from many parts of the country. The society has no endowment and no fixed income from any philanthropic foundation. At present there are 577 members and contributors of all classes, approximately half of whom are physicians. Branch committees of the society are formed in the several States and cities, but as integral parts of the national society. The chairmen of State committees are usually members of the National Board of Directors. State committees may organize local committees in the principal centers of population wherever the interest and needs warrant. At the present time State committees have been authorized in sixteen States and several others are in the process of formation. Increasingly effective work is being done by State and city boards of health in the direction of instructing the public regarding the prevention of disease. The society endeavors to have the more progressive health officers devote a proportionate share of attention to cancer in this connection, and the national office undertakes to furnish data, statistics and special articles produced under the supervision of the appropriate committees, for local use in the name of the board of health. Many health boards, including particularly those of Michigan, Virginia, North Carolina, New York, Massachusetts, Kansas, New York City and Toronto, are now taking an active part in this campaign, while a number of other departments have made a beginning.

The design of the society is taken to include efforts to keep the general practitioner in touch with the latest developments in the knowledge of cancer and cognizant of his duty to the patient. In this field, however, it is felt that the regular professional organizations should take the lead. The society therefore offers all possible co-operation and assistance to State and county medical societies in providing literature and speakers, and to the various medical journals in publishing appropriate articles. Many State societies have appointed special cancer committees, some of these as in the case of Pennsylvania antedating the formation of the national organization and representing notable pioneer work in this field in America. In several instances the committee of the national society and that of the State medical society have been made identical.

Systematic effort is made to promote the instruction of nurses regarding the earlier phases of malignant disease and predisposing conditions, in order that they may be adequately prepared to advise people, especially women with whom they come in contact in the course of their duties, to seek professional attention in time. A series of special articles for nurses have been published, meetings for nurses have been arranged, all the leading schools of nursing in the country have been urged to include in their courses lectures on the early signs and symptoms of cancer and opportunities are sought to present the subject at the annual meetings of State and national organizations of nurses, a number of which have recorded their endorsement of the purpose and methods of the society.

The field workers of charity organization societies have similar opportunities to advise people who do not ordinarily read newspapers and educational books and pamphlets. The national office has circularized several hundred of the larger charity organization societies in the various States, seeking their interest and co-operation in holding public meetings and in arranging for the special instruction of the members of their working forces.

Women's organizations have proven one of the most effective single agencies in disseminating knowledge of early cancer and the conditions leading to the disease. The work of the society has been brought to the attention of the national and State federations of women's clubs, and the appropriate committee officials have been circularized in order to secure their co-operation in suggesting this topic to local clubs. As a result women's clubs in many States and cities have frequently taken the lead in arranging public meetings and in providing lectures in their regular study programs.

The co-operation of the leading insurance companies is sought not only in respect to statistical investigations but for the distribution of educational literature. One of the largest companies has reprinted at the suggestion of the society a cancer leaflet which it is prepared to distribute to the number of two million copies. At the recent meeting of the American Life Convention a resolution was adopted providing for the distribution by insurance companies generally of a brief uniform circular approved by the society to be sent out in premium notice envelopes, thereby reaching many thousands of intelligent people.

Many of the larger industrial, commercial and transportation companies have undertaken extensive welfare work and health instruction for the benefit of their employees. The society has offered to the appropriate officials of these companies any desired assistance in providing speakers and circulars, or suggestions for the preparation of special literature to be distributed by the companies themselves.

By direct effort and through its local committees and various other agencies already referred to, the society stimulates the publication of carefully considered newspaper articles. So far as possible the character of this matter is controlled by the national organization, which sends out in its own press service short articles prepared under the close scrutiny of a committee on publication. Valuable newspaper publicity has been secured through the work of some of the leading State and city boards of health.

The Society has published for general distribution to the public a number of leaflets giving in simple language the elementary facts about the disease. A series of special bulletins is also published for more limited distribution among members of the society and those who are directly concerned in organizing local educational campaigns.

To inaugurate work in each of the more important cities, the co-operation of professional, civic and religious forces is secured in arranging a general public meeting at which recognized experts may discuss the various phases of the cancer problem. Perhaps even more effective in reaching the public with the facts are lectures given under various auspices, particularly women's clubs, to small audiences under conditions such that a single speaker can present the subject in a more direct and convincing manner. The society undertakes to act as a lecture bureau and to provide qualified speakers for meetings in any part of the country.

The second principal object of the society is to organize statistical research on a broader basis than has hitherto been possible. While numerous individuals, clinics, research laboratories, insurance companies and public health departments have been interested in this field and have done valuable independent work, the society has now undertaken to co-ordinate all these agencies for the conduct of special investigations on a larger scale.

At the suggestion of the society the Director of the United States Census has ordered the publication of a special report on the cancer mortality of 1914 which is now in press and will constitute one of the most important statistical studies of this disease so far made under the auspices of any government. An important advance undertaken in this connection at the suggestion of a prominent American surgeon is the distinction made between the figures of deaths in which the diagnosis was reached after autopsy, surgical intervention, or microscopical examination, and those in which the diagnosis was based merely on clinical observations. In addition, the forthcoming report will give the figures in far greater detail than hitherto and according to twenty-nine separate organs and parts of the body affected instead of under the seven group titles of the International List of Causes of Death as used in the annual reports of the Census Bureau. Much of the improvement with respect to greater detail and accuracy which characterizes this special report will doubtless become a permanent feature of the American national statistics of cancer.

The society has also undertaken the collection and study of records of operations for cancer in numbers approximately as great as those represented in the national mortality statistics. A blank has been prepared and leading surgeons throughout the country are asked to co-operate in this study by reporting thereon a few essential facts regarding each case of the disease on which they operate, either in private practice or in hospital service. The records thus obtained will be followed up at intervals of one year by inquiry addressed to the surgeon and the data will be tabulated and analyzed by expert statistical methods. Any new and definite evidence as to the curability of cancer which may result will be laid before the public in the course of the educational campaign, but any such announcement will be in the name of the society and no comparison or publication of the work of individual surgeons will be authorized.

The same healthful qualities that exist in ripe grapes, a natural, wholesome food, are conveyed to cakes, biscuits, muffins and pastry made with
ROYAL
BAKING POWDER
Made from Cream of Tartar
Derived from Grapes
No Alum
No Phosphate
ROYAL
BAKINGPOWDER
Absolutely Pure

ANNOUNCEMENT

The Bacillus Acidophilus

B. ACIDOPHILUS is an organism of high acid producing (anti-putrefactive) qualities whose NORMAL HABITAT is the HUMAN INTESTINE.

To ensure a sufficiency of this natural defensive organism, when depletion or extinction occurs from any cause whatever, we now offer this B. ACIDOPHILUS as **a new therapeutic agent.**

Descriptive circular on request.

No samples.

THE ARLINGTON CHEMICAL CO.
Yonkers, N. Y.

New Medical Provisions for Health Insurance.

Important advances in plans for organization of medical care under health insurance appear in the pamphlet entitled, "Medical Provisions of the Tentative Draft of an Act for Health Insurance," published by the American Association for Labor Legislation at its headquarters in New York City. These provisions, in the opinion of the Council of the Medical Society of the State of New York, "safe-guard the public interest, the public health and the welfare of the medical profession."

Gains have been made by providing specifically in the new sections of the act for adequate representation of the medical point of view. The physician member of the State commission is supplemented by a State medical advisory board elected by the State medical societies. This board passes upon regulations issued by the Commission effecting medical benefit, and hears and reports upon disputes appealed to the Commission. Medical interests also secure valuable participation in local organizations through the local medical committee, while the foresighted provision for the representation of different groups —health department, general practitioners and specialists—on the committee is assigned to maintain a just balance among the varying medical interests. This committee has the opportunity of discussing local medical regulations before they are put into operation by the directors of the local insurance fund, and also hears any cases of disagreement relating to medical benefit. If it is unable to settle the difficulty, appeal is taken to an arbitration committee composed of representatives of the physicians, of the local health insurance fund, and an impartial chairman.

Careful study of foreign experience pointed out the desirability of separating the functions of certifying an insured person as eligible for benefit and of actually treating him, in order to avoid the embarrassing situation in Germany where a physician acts as plaintiff and defendant at the same time. Therefore, medical officers, not permitted practice under the act, alone, have authority to issue certificates of disability and only if its issuance has been recommended by the attending physician. To assure that high grade men are appointed by the local funds, the bill provides that the medical advisory board, elected by the State medical societies, shall establish the qualifications and that the local medical committee shall have power to veto undesirable appointments. This procedure avoids certain disadvantages of a civil service examination and assures that the medical officer is selected, because of the confidence placed in him by the physicians with whom he will be associated.

"Get-together Dinner."

The second annual "Get-together Dinner" of the Bronx County Pharmaceutical Association is to be held February 12, at 9 p. m. at Ebling's Casino, 156th street and St. Anns avenue. Among the speakers will be Oscar S. Strauss, chairman of the Public Service Commission, and Dr. Jacob Diner, dean of the Fordham College of Pharmacy. The underlying principle is to stimulate good fellowship, and to bring the pharmaceutical and medical professions into closer relationship.

The Treatment of Edema.

In the medical treatment of edema results are frequently unstatisfactory when digitalis or its unstandardized derivaties are used—ANEDEMIN, which is a combination of apocynum, strophanthus, squill and sambucus, all of which have been carefully selected and tested so as to present a uniform physiologic action, has proven by clinical administration to be of much service in dropsical conditions. It not only stimulates the activity of the kidneys but improves the tonicity of the cardiac muscles, a very necessary procedure in the treatment of those conditions manifested by edema. Anedemin Chemical Co., manufacturers, will submit samples of Anedemin to physicians interested that its merits can be fully tested in dropsical conditions due to cardiac, renal or hepatic diseases.

Health Insurance.

B. S. Warren, Washington, D. C., has drawn up a plan for health insurance as the next step in welfare legislation, which is given in outline, with the remarks on the special points involved. He points out its advantages in detail and its relation to other social reforms. It includes a corps of full-time medical officers, and while giving free choice of registered physicians, these could oversee the treatment and carry into effect the regulations. The final result would be, according to his plan, to place health on a competitive basis in the political and business world.—(*J. A. M. A.*)

The diabetic patient offers a problem of no small importance to the practicing physician of today.

Few afflicted with the disease are able or willing to follow out the prescribed regimen—which is so essential to recovery—in the home environment. The patient has no means of determining food values—is seldom prepared even to measure quantities in drams or ounces and has no idea at all about calories of food composition.

Under the favorable conditions afforded by institutional management and the applications of the up-to-date methods, even grave cases may be brought under control and often with surprising promptness. Ordinary cases are quickly made sugar free and cases are very rare which may not be substantially benefited by the efficient application of systematic treatment under conditions of perfect control.

A special advantage of institutional treatment in these cases is the opportunity for educating and training the patient in dietetics and in eating habits adapted to his individual requirements, so that when he returns home at the end of a few weeks he is able to establish and maintain a suitable regimen by which he may, with the aid of careful watching by his family physician, remain sugar free for an indefinite period.

We will be glad to send further information concerning the Battle Creek method in diabetes to any physician.

THE BATTLE CREEK SANITARIUM, Box 335, BATTLE CREEK, MICHIGAN

A NEW BOOK

DEVOTED TO THE APPLICATION OF

BACTERIAL VACCINES

Explaining their therapeutic action—How, When and Where to use them.

By DR. G. H. SHERMAN

Just What the Doctor Needs

to obtain necessary information in this most **efficacious method of treating infectious diseases.**

More rapid strides have been made and more brilliant results obtained in the Field of Therapeutic Immunization than in any other branch of medicine.

This book contains over 500 pages, is cloth bound and sells for $2.50.

Daily Users of Vaccines Use Sherman's

G. H. SHERMAN, M.D., 3334 E. Jefferson Ave., Detroit, Mich.

IODIN

that will give Iodin results without the usual Iodin disturbances

ORGANIDIN—WAMPOLE

A physician of Harrisburg, Pa., reports

"That his experience thus far with Organidin warrants his further consideration, having given same to a patient sixty-eight years of age with a blood-pressure of 170 bounding pulse, severe headaches increasing in intensity upon retiring, stomach so weak that iodids were out of the question, and after ten days' treatment blood-pressure was reduced to 140, headache disappeared, sleep was comfortable and there was absolute no stomach distress."

Trade-size package mailed to any address postpaid on receipt of $1.00
(1-oz. package, an ordinary three-weeks' treatment)

PREPARED SOLELY BY

HENRY K. WAMPOLE & COMPANY

—INCORPORATED—

MANUFACTURING PHARMACISTS, PHILADELPHIA, U. S. A.

"Show of Wonders" at the Winter Garden.

It is only at the Winter Garden, with its splendid equipment, and well organized staff, that a spectacular extravaganza named a "Show Of Wonders" would have been able to live up to the title. The Winter Garden is one of the theatrical institutions of New York; and it is the one playhouse where the playgoer is never disappointed in seeing a well put together, novel and surprising musical entertainment. In the "Show Of Wonders" there is the most extraordinary blending of extravaganza, and the employment of a galaxy of comedians in a series of hilariously diverting scenes, that the New York stage has known. While there are fourteen scenes in the "Show Of Wonders" and a list of comedians and dancers that reads like "Who's Who" on the stage, there is never the least confusion, —all goes along with a bang. In the great cast of the "Show of Wonders," the more important players are: George W. Monroe, McIntyre & Heath, Howard & Howard, Walter C. Kelly, Tom Lewis, John T. Murray, Marilynn Miller, Alexis Kosloff, Grace Fisher, White and Clayton, Sidney Phillips, Eleanor Brown, Edmund Mulcahy, Ernest Hare, Virginia Smith, Dan Quinlan and one hundred and twenty-five others.

Anatomic Nomenclature.

William Fuller, Grand Rapids, Mich., suggests that it has become necessary to revise the nomenclature of the brain for the benefit of students and workers. Simplicity should be our aim, and he mentions a couple of the absurdities of the present nomenclature. The cingulum should be called the superior internal longitudinal commissure, one of the four great longitudinal commissures associating the regions of the memories with the frontal lobe. Another absurdity is the forceps major and the forceps minor, names of parts which he has failed to find in any of his dissections of many brains. A systematic generalization of the parts of the general nervous system in connection with that of the whole body would be a great advantage in helping to do away with multiplicity of names with no obvious connection or system. He criticizes also the use of eponyms as also confusing, of conveying no idea appropriate to the part or its connections. The uncertain signification of technical words is a matter to be avoided and its abolition in the system of nomenclature would be of value also in promoting the sciences of psychology, psychiatry, education and eventually justice.—(*J. A. M. A.*)

Stomach Disorders.

Syphilis as a probable factor in vague stomach disorders is the subject of a paper by Cabot Lull, Birmingham, Ala. There is still too large a class of so-called functional diseases of the stomach, which is really made up largely of patients suffering from visceroptosis, pyogenic infections, heart disease, hyperthyroidism, latent tuberculosis and syphilis. There is a rapidly growing literature of organic syphilis of the stomach. On the other hand, it is a question of great practical importance how we shall classify cases that meet only the conditions of a positive Wassermann and therapeutic improvement under specific treatment. Syphilis may be said to affect the stomach in the following ways: (1) By producing positive, specific lesions; (2) by causing demonstrable structural changes in other organs closely allied to the stomach either anatomically or in function; (3) by producing changes not histologically recognizable but due to spirochetal action direct or through the agency of its toxins on the stomach itself, on the general nervous system, or on the blood. The first two groups are saved by the gravity of the symptoms calling for early attention, but the third group more often falls into the class of so-called neurotics or nervous dyspeptics. Before the discovery of the spirochete and the Wassermann test we depended on very uncertain histories and other signs, but since these tests have been known we have to recognize the fact that such cases are more common than had been supposed. A vast amount of work must yet be done to clear up the subject, but what we already know is revolutionizing our ideas to a large extent.—(*J. A. M. A.*)

Intravenous Treatment.

During the present winter season many physicians have treated cases of bronchitis, bronchial asthma, and even pneumonia with Venodine, securing results that were very satisfactory. In the use of Venodine there has been noted a decided increase in the number of red blood cells during treatment. Creosote and guaiacol, the other ingredients combined with iodine, have about equal therapeutic action. It is believed that the intravenous method of administering Venodine is a logical, efficient treatment. It increases the red blood cells and increases resistance, endurance and strength, and in many cases the weight. Literature and samples will be supplied upon request to the Intravenous Products Company, Denver, Colorado.

During Pregnancy

STANOLIND Liquid Paraffin is an admirable laxative for use during pregnancy. It produces no irritation of the bowel, has not the slightest disturbing influence upon the uterus, and no effect upon the fetus.

The regular use of Stanolind Liquid Paraffin in the later months of pregnancy is an effective means of avoiding some of the serious dangers attending the parturient state because of sluggish bowel action.

Stanolind Liquid Paraffin counteracts to a definite extent an unfortunate dietetic effect on the intestine in this manner; the concentrated diet of our modern civilized life contains so little indigestible material that the residue is apt to form a pasty mass which tends to adhere to the intestinal wall. Stanolind Liquid Paraffin modifies this food residue, and thus tends to render the mass less adhesive.

Stanolind Liquid Paraffin is mechanical in action, lubricating in effect. Its *suavity* is one of the reasons why increase of dose is never needful after the proper amount is once ascertained.

A trial quantity with informative booklet will be sent on request.

Standard Oil Company

(*Indiana*)
72 West Adams Street
CHICAGO, U.S.A.

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Displacements of Colon.

C. A. L. Reed, Cincinnati, recommends as a conservative method of treating mechanical retardative displacements of the colon, which he considers are more frequent than have been supposed, the parietal implantation of the colon, and describes his technic of the operation. It is not intended that it should be performed in cases in which the roentgenologic and clinical study shows that the perturbation of function can be controlled by nonsurgical measures. It is only justified in cases which are as severe as those which he has described. In the last seven years he has done the operation alone 226 times and 62 times he has combined it with other operations. He has had no death in cases in which parietal implantation was done alone. As a rule the secondary or final results have been most satisfactory.—(*J. A. M. A.*)

Premature Ventricular Systoles.

J. E. Greiwe, Cincinnati, says that the irregularity of the heart action as shown by premature ventricular systoles has been too often attributed to disease of the heart, and he emphasizes his opinion that this too early contraction of the ventricle is in most cases only a functional disturbance. It may be of very short duration, or it may last for a while and finally disappear, or be more or less constant. It occurs in hearts that show absolutely no other sign of disturbance, as well as being encountered in cases that manifest organic disease. Even in the last case it may not be the result of the organic lesion, but may be the symptom of a toxic condition in which the heart muscle becomes oversensitive. As a rule, its recognition is not difficult, and he describes these premature contractions as heard in auscultation, and illustrates it by figures and tracings. Its occurrence may give rise to distinct subjective disturbances, which may be pronounced or may produce only temporary discomfort. They sometimes are so great as to cause great alarm.

The frequency of premature ventricular systoles and their association with toxic conditions are the matters of importance in diagnosis and treatment. This form of irregular heart action is met with in connection with toxic conditions arising in the digestive tract; in disease of the gallbladder; in infectious conditions in the nose; in kidney disease and various suppurative conditions, and conditions of high blood pressure. It has been credited to excessive use of tea, coffee and tobacco, but Griewe has not observed it from this cause. Formerly any decidedly irregularity of the heart action was diagnosed as due to myocarditis. Constipation, in the author's opinion, is a very important factor in etiology, and he has noticed its disappearance after purgation with castor oil. Gallbladder disease and enteroptosis have also been observed in connection with it, though he does not attribute it wholly to ptosis. Loss of sleep, worry and excitement are factors, and he would advise that cases showing premature ventricular systoles be not considered as bad risks unless there are other signs of heart disease.—(*J. A. M. A.*)

Choked Disk.

W. R. Parker, Detroit, has chosen the relation of choked disk to the tension of the eyeball, reviewing the theories that have been advanced and relating his own experimental work and clinical observations in regard to this condition. The experiments of others are also reviewed. In his own experiments, designed to determine the effect of a difference in tension between the two eyes on the initial appearance or amount of choked disk in cases of increased intracranial pressure, twenty dogs and three monkeys were used. The tension in one eye was diminished by performing the sclerocorneal trephining operation of Elliot. After recovery from the operation the intracranial pressure was increased and the effect on the two eyes observed.

For increasing the pressure the following methods were used: Injections of a saline solution, use of an air bag attached to the end of a tube which closely fitted the trephine opening; the use of a sea tangle tent, paraffin injections, and sponge tents. The following are the conclusions deduced from his study: "1. Choked disk can be produced in the dog and monkey by artificially increasing the intracranial pressure. The most satisfactory results are obtained by the use of sponge tents. 2. When the intracranial pressure is increased by artificial tumors placed in the occipitoparietal region, one element in determining which disk will be affected first is the tension of the eyeball. 3. When the intracranial pressure is increased by artificial tumors placed in the occipitoparietal region, the nerve in the eye of least tension is the first to show the choked disk. 4. When the intracranial pressure is increased by artificial tumors placed in the occipitoparietal region, there is no direct relation between the location of the tumors and the eye first affected."—(*J. A. M. A.*)

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The Value of Hypochlorite Solutions for the Treatment of Wounds.

At a recent meeting of the Surgical Section of the Royal Society of Medicine, Dr. Sherman of Pittsburg, Pa., read a paper on the method followed by Carrel for the sterilization of wounds. The antiseptic employed was Dakin's solution, prepared according to a formula suggested by Daufresne.

With chloride of lime (bleaching powder) having 25 per cent. of active chlorine, the quantities of necessary substances to prepare 10 litres of solution were: Chloride of lime, 200 grams: sodium carbonate (dry), 100 grams; sodium bicarbonate, 80 grams. The chloride of lime was put into a 12 litre flask with 5 litres of ordinary water, shaken vigorously for a few minutes, and left in contact for from six to twelve hours. At the same time the carbonate and bicarbonate of soda were dissolved in another 5 litres of water. The salt solution was then poured into the flask containing the chloride of lime, and the mixture being well shaken was allowed to stand so that the calcium carbonate might fall. After about half an hour the liquid was siphoned off and filtered through a double paper to render it clear. It should then be kept in a dark place.

In the treatment of wounds the solution was led to them from a glass container by means of several rubber tubes in which holes were cut at frequent intervals. These were insinuated into the wounds, or laid upon them in such a way that every part of their surfaces and recesses was irrigated. Gauze lightly adjusted around the tubes assisted in retaining them in position and in bringing the whole area into contact with the solution. The wounds were flushed intermittently. With this method even serious and deep wounds soon became free from pus and covered by healthy granulations, and before many days could be sutured or brought into apposition by strips of plaster, union then occurring rapidly. The degree of infection of the wound was determined regularly by smears in each case, and by this means the rapid decline in numbers of the bacteria could be noted and the time when suturing was permissible determined. His contention was supported by photographs, radiograms, and lantern slides. (*Brit. Med. J., Nov.* 4, 1916.)

Left Fallopian Tube Found in Left Femoral Hernia.

E. G. Renny, Colchester, reports the following case as he can find no record of a Fallopian tube presenting in a femoral hernia.

The patient, aged 42, married, mother of three children, had noticed a lump in the left groin for 18 months. During the last five weeks it had become painful, and thinking it was a rupture she bought a truss and wore it. The effect of wearing the truss was to make the lump very painful and inflamed. The author found a painful swelling in the groin which, on account of the inflammation present, made the diagnosis uncertain. It was dull to percussion, not reducible, and had no impulse on coughing. No strangulation symptoms were present. The finger could be passed up the inguinal canal for a short distance. Rest was advised and when the inflammation had subsided an incision was made over the tumour. It proved to be a femoral hernia with somewhat thickened sac and contained a considerable quantity of green fluid. Occupying the crural canal was a red, soft substance, which, when traction was made on it, proved to be the left Fallopian tube with its fimbriated extremity presenting. This was returned to the abdomen without much difficulty, and the sac was ligatured and excised. (*Lancet, Oct.* 21, 1916.)